

choice

There goes the sun
Shonky solar installations

Product tests

Electric heaters
Ovens
Rangehoods
Tyres
Cots
DVRs
Bike lights
and more



The good in bad

Best fast food choices



Home sweet home

- How to survive your reno
- Insurance traps to avoid

210
products
reviewed!

TAKE THE SHINE OFF TOOTH WHITENING

Thinking global

CHOICE headed abroad to find out what consumer groups around the world are doing.

In an increasingly globalised economy, it's important we look to the world stage for early warnings of bad policies, dangerous products and poor corporate behaviour. And it's vital we share our knowledge with other consumer groups struggling with similar issues.

Based in London, Consumers International (CI) is an extraordinary network. Founded 50 years ago with CHOICE's help, it now has operations in Malaysia, South Africa and the Caribbean, bringing together more than 200 consumer groups from 120 nations. CI campaigns on international consumer issues, financial stability and competition, and helps groups fight for better consumer protection.

Delegates from consumer organisations around the world meet every four years. The most recent event was held in Hong Kong and CHOICE sent a team of five: head of campaigns, Matt Levey; writer Brendan Mays; Katherine Gatfield from marketing; director of campaigns and communications Christopher Zinn; and myself.

The generous sponsorship of the HK administration allowed many delegates from the developing world to attend the three-day

gathering. Topics included unfair financial services, sustainability, food labelling and, importantly, the power of the online network.

Internet and social media, such as Facebook and Twitter, now give consumers the power to create networks that can achieve real change. You only have to look at the success of CHOICE Consumer Champion Adam Brimo's Vodafone campaign to see the power of the many in action.

It's important for CHOICE that we learn from our counterparts around the world – their strategies, innovative business models and the ways they help their members. We can forge partnerships to check global prices and see how others approach issues around climate change and competition in the financial sector. We can also give back to smaller and less affluent groups, to help foster consumer consciousness in their own countries. For example, we have an agreement to share information with a key Indian

consumer group who couldn't possibly afford to test their own items.

I'm also pleased to report CHOICE has been re-elected to the board of CI for another four years, and we'll continue to benefit from, and contribute to, this remarkable and worthwhile global body.

Nick Stace, CEO
Phone 1800 266 786
Email nick@choice.com.au

L-R: Christopher,
Brendan,
Katherine, Nick
and Matt



CHOICE. The People's Watchdog

CHOICE gives you the power to choose the very best goods and services, and avoid the worst. We pay full price for all the products we test, so we remain 100% independent. We don't take advertising and we don't accept freebies from industry.

We're not a government body and our consumer publishing and advocacy is almost entirely funded by subscriptions to our magazines, www.choice.com.au and from other services we supply to benefit members and consumers.

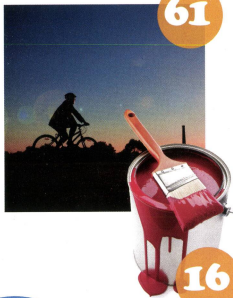
CHOICE product ratings are based on lab tests, expert assessments and consumer surveys. CHOICE staff also research a wide range of consumer services. They reveal the truth behind the facts and figures, and investigate the quality and the claims.

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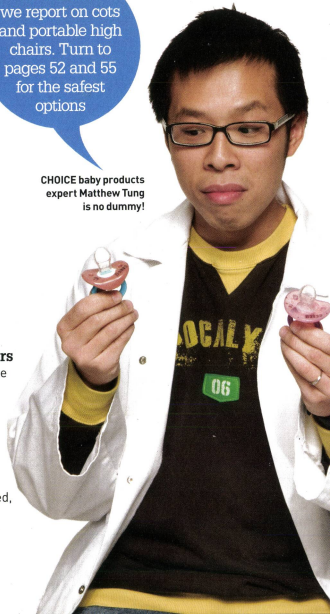
This test illuminates an important safety issue

62 Tyres and tyre pressure gauges

The worst tyre we've tested, and tips for a safe ride

This month we report on cots and portable high chairs. Turn to pages 52 and 55 for the safest options

CHOICE baby products expert Matthew Tung is no dummy!



"People should not be put off doing exercise. It still has other benefits such as better cardiovascular fitness and lower blood pressure"

Is exercise making you fat?

Exercise can increase some people's cravings for high-fat, sugary foods, preventing them from losing weight, a study from Queensland University of Technology (QUT) has found.

Of the 34 people who completed a supervised exercise program, 14 failed to achieve weight-loss targets. This group of so-called non-responders had increased cravings for fatty and sugary foods such as chocolate milk and doughnuts. Responders, who lost weight, preferred low-fat foods after exercise.

This was only a small study, but provides clues as to why some overweight people lose more or less weight than expected on exercise programs. Identifying a predisposition for craving fatty and sugary foods may improve weight loss strategies by tailoring diet and exercise to suit the individual, the study indicates.

Associate Professor Neil King of the QUT Institute of Health Biomedical Innovation warns that although some people have difficulty losing weight, exercise is still recommended. "People should not be put off exercise. It still has other benefits such as better cardiovascular fitness and lower blood pressure."

Prof King's earlier research demonstrated a variation in the ability of overweight people to lose weight through exercise. "What this told us is that exercise won't work in the same way for everyone," he says. "We are now beginning to explain why they may not be able to lose the expected weight."

EMILY MCCLUSKEY

TV on the go

Sources say web TV service Hulu is entering the Australian market, having applied for a local trademark in late March. Hulu won't comment on the

possible migration. YouTube is launching its online movie rental service in the US, with no current plans for an Australian release. But you need

not wait – Aussies can now legally access web TV. Find out how in the next issue of *CHOICE Computer*.



BREAKING NEWS

Telling stats

The latest ABS Cost of Living report shows what happens when banks get greedy. The report says the big four's controversial hike above the official cash rate last November is a major part of why households are facing a 4.9% increase in cost of living – well above the Consumer Price Index (CPI) of 3.3%. Government statisticians say mortgage costs, which aren't included in the CPI, went up 24% over the year to March, spurred on by the hike.

Generic win

New federal legislation will lead to better access to generic medication for consumers. Generics will be on sale sooner as companies won't be able to claim copyright of product information pamphlets, required by the Therapeutic Goods Association. Parliamentary Secretary for Health and Ageing Catherine King says product information of all brands of the same medicine should be consistent and delays in generic medicines entering the market mean increased cost to consumers.

It's a freebie

The Australian PlayStation Network games service should now be back online. Sony is giving away free games, memberships and subscriptions to affected customers, in response to the company's network being shut down following hacker attacks in April.



FIRST LOOK

Going the distance

While you may agree with Mark Twain that golf is a good walk spoiled, you most likely also know someone obsessed with the game.

GPS devices have been used by golfers for several years. But it's sometimes a case of too much information – knowing how far to the water, the second sand trap, or the out of bounds marker, you may forget about hitting a good shot. The Garmin Approach S1 GPS watch keeps things simple, quickly displaying distance to the front, middle and back of a green. You may find it somewhat bulky at first to wear, but at only 52g it shouldn't hamper a normal swing.

The device, which has normal watch functions and can be immersed in one metre of water for up to half an hour, comes preloaded with more than 600 Australian courses. You can't map out the course yourself, though Garmin says more will be added to its website, so check your favourite course is included.

CHOICE tested the device on several courses and found it fast and accurate, automatically detecting the nearest club and providing information when

you approach each tee. It is a true set-and-forget device – you can play a whole round and not touch a button. But turning on the GPS at least 15 minutes in advance is advised. You can also use the S1 to analyse your club distances by selecting the odometer setting, which can also be used for fitness purposes.

The Approach S1 comes with a USB cable to connect to a PC for software and course upgrades and a power adapter for charging. A charge should last about two weeks as a normal watch or two rounds of GPS-enabled golf.

CHOICE VERDICT

The Garmin Approach S1 is a good alternative to the current range of golf GPS devices, delivering clear distance information at a quick glance.

DENIS GALLAGHER

GARMIN APPROACH S1

PRICE \$299

CONTACT www.garmin.com.au



The future – in your nature strip



How much would you pay for super-fast broadband? If you're the federal government, the answer is \$18.2 billion.

That's the equity committed in the federal budget to finance the roll-out of the National Broadband Network (NBN)

over the next four years. The budget also includes a cool \$5.6 million for ACCC monitoring of the network.

There is no shortage of views about whether the NBN, due for completion by 2020, is a visionary leap into the digital future or a very expensive way to dig up

The CHOICE Recommended Scheme has a framework for the use of our reviews, but we often find products with incorrect and misleading references to CHOICE. For a list of products licensed to use our logo, go to choice.com.au/choicerecs, and please report any errant operators.

our front yards. Consumers can make up their own minds using a plain-English guide, released by the government-funded Australian Communications Consumer Action Network.

NBN: A Guide for Consumers answers key questions such as clarifying that connections to the network will be organised through existing third parties providers Telstra, Optus and AAPT, among others. The guide can be found at accan.org.au/NBNguide.php. **MATT LEVEY**

Whoops!

MAY ISSUE

- In our story on solar power kickbacks, we incorrectly abbreviated megawatt to mw, which in fact stands for milliwatt. We should have used MW.
- One of our recommended mid-priced vacuum cleaners, the Electrolux JetMaxx ZJM6840, and two Ozito garden blower vacs, the BVP-2400 with Patio Head and OZBLV2400WA, should have been Best Buys.
- And thanks to all our eagle-eyed readers who told us about the cover's incorrect reference to the iPad2 review on page 24. In fact, that review could be found on page 5.

One-stop medicines advice shop

A "be medicine wise" campaign has recently hit the airwaves courtesy of the National Prescribing Service.

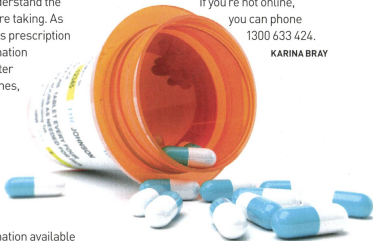
The NPS, a national organisation created and funded under the government's quality use of medicines objective, encourages consumers to understand the medication they are taking. As well as the obvious prescription medicines, information on over-the-counter pharmacy medicines, herbal remedies, vitamins and supplements is also available.

The campaign aims to make consumers aware of the fact sheets and information available

on the NPS website, nps.org.au. Website visitors can find out about treatment options (drug and non-drug) and how to report drug side-effects. They can also subscribe to a health newsletter and download information leaflets for medications.

If you're not online,
you can phone
1300 633 424.

KARINA RAY



15%

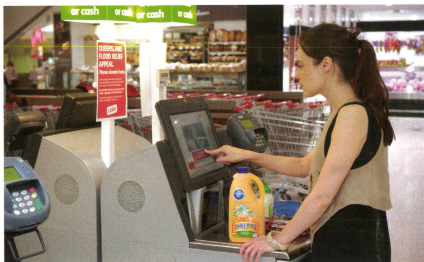
Reduction in sodium in Asian-style simmer sauces with more than 680mg of sodium per 100g by the end of 2014

1090mg

Maximum amount of sodium in bacon, ham and cured meats per 100g by the end of 2013

1600mg

Suggested maximum daily intake of sodium according to National Health and Medical Research Council



Scanned off

If an item scans dearer at the checkout than it really is, it should be free – but at least one supermarket is fudging the rules. Bi-Lo, Coles, Woolworths and Franklins are signatories to the Australian Code of Practice for Computerised Checkout Systems in Supermarkets, which enforces this rule. But contrary to what some consumers are told, you don't have to pay to be eligible for the refund.

Eagle-eyed CHOICE member Dianne Wallyn noticed a mistake in the scanned price of an expensive hair product at Bi-Lo in Marcoola, Queensland. But the cashier simply charged her the lower amount.

"I believe they were trying to deceive me. There was a sticker on the back of every checkout saying if an item scans overprice you get it for free, so why weren't they applying their policy?" Dianne successfully insisted on the freebie, "but it was really drawn out and I had to make a scene."

A spokesperson for Bi-Lo told CHOICE that this was a one-off issue. "If customers are having problems with policies being enforced, they can call us and we will find out what has happened."

The code covers most items, except liquor, tobacco, or items worth more than \$50.

ZOYA SHEFTALOVICH

Twitters versus the banks

ING customers in the Netherlands, furious about executive bonuses, mobilised on social networks and threatened to withdraw funds from the taxpayer bailed-out bank. In response, CEO Jan Hommen declined his own handout and promised to halt executive bonuses until the bank repaid state aid.

Now, Dutch finance minister Jan Kees de Jager has revealed plans for

related legislation. "Last time, the deal was no profit, no bonus," he said on Dutch television. "I now plan to introduce stricter legislation. As long as a bank is on the government drip, it cannot pay bonuses to its executives."

Most Australian banks have Facebook pages or Twitter accounts, and CHOICE encourages consumers to use them to get your voice heard.

KATRINA LEE

Wanted: Shonky nominees! If you've come across any products or services deserving of a big fat lemon trophy, please email shonkys@choice.com.au

"Shops can't ask for 'offers above 50 cents' for a carton of milk, so why is it OK with houses?"

► CAMPAIGN

Banking better, but not best

The Senate Economics Committee has released its report into competition in the banking sector, but CHOICE does not believe the recommendations go far enough in lowering unfair bank fees or improving customer service.

The report does not insist on abolishing or reducing fees for on-screen ATM balance checks or the introduction of portable account numbers. But we applaud their recommendation that banks

must justify lending rate increases above the RBA rate with evidence that it's necessary. If the big four continue to protest that they are only passing on the higher costs of borrowing from overseas, their claims must be proven.

CHOICE has worked closely with government, regulators and the industry itself in forging a new path for banking in Australia – one that puts customers above bank profits and removes obstacles to fair play between banks and customers. For more information, log on to choice.com.au/betterbanking.

MARNI SWITZER



I say

interest in the property."

Less than 48 hours later, the agent told us the vendor would not accept offers less than \$70k above the still-advertised price.

We raised our offer a further \$20k, but a week of silence followed.

I asked a friend to email the agent for information. Lo and behold, she was given the original and still-advertised price guide, despite the vendors clearly fishing for more. We were furious at this potentially misleading misrepresentation. Shops can't ask for "offers above 50 cents" for a carton of milk, so why is it OK with houses?

Later, an automated email informed us the property would be auctioned, and the agent phoned to ask if we were planning on registering to bid. We told her we would not. Having already spent \$700 on pre-purchase diligence for a property we'd been outbid on, we weren't willing to foot the cost again.

To our surprise, she advised us to proceed to auction without having our solicitors review the contract and without inspections. I was flabbergasted that an agent would give such potentially costly bad advice.

Three days before the auction, the agent phoned with a heavy pitch. "It's a brick house with no carpet – you'd see any pests," she lied. "Don't worry about your solicitor, just read over the contract yourself, it's not complicated." This was blatantly untrue – I can't make an informed decision about a building's structure, pest problems or potentially risky clauses in the contract.

We loved the place, but we weren't willing to buy a property we had not properly investigated. KAT HARTMANN

For the full story, check out choice.com.au/reaalestatewoes



Kitchen whiz?

This multifunction cooking appliance can mill, pulverise, grate, mix, emulsify, knead, whip, beat, cook, heat, steam and chop and has an inbuilt scale. It's very similar to the Thermomix (see *CHOICE*, December 2010/January 2011, page 9), but needs to improve in some areas to be up there with its rival.

The MyCook comes with a steamer, spatula and stirring attachment; simmer basket/strainer and measuring cup; however, its selling point is its integrated induction heating system. The machine heats to 120°C, has 10 speeds as well as a timer, kneading button and turbo function. The integrated scale is a great bonus feature, allowing you to weigh as you go. Our home economist, Fiona Mair, tested each function with a range of recipes and found that once she familiarised herself with the unit, it was excellent for performance.

MyCook's controls are labelled well and are easy to use, but they have cracks and crevices where dirt can accumulate. The lid requires a bit of strength to lock into position, and isn't ideal if you have hand or wrist weakness. It's also very noisy – when mixing, the jug vibrates and its cooling fan comes on, adding to the noise. Dough and heavy cake batters can



**FIRST
LOOK**

be awkward to remove from the bowl, which is difficult to clean afterwards. However, adding water and detergent and running it through a cycle should loosen the mixture, making it easier to clean. All accessories except the blade are dishwasher-safe and all parts (except the steaming bowl) can be stored in the bowl.

Fiona found the instructions and recipe book a little unclear – some have ingredients missing and are named incorrectly. However, the importer Rely Services has informed *CHOICE* that once it establishes a stronger market base in Australia, it aims to make changes here.

CHOICE VERDICT

The MyCook Domestic has potential. Like the Thermomix, it's great for a busy family or the less experienced cook and saves time as you can set the timer and get on with other chores. It's expensive, but can replace a number of single-function kitchen appliances.

REBECCA GATTO

MYCOOK DOMESTIC 1600

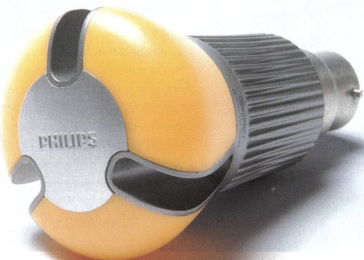
PRICE \$1840

CONTACT www.relyservices.com.au



Light bulb moment

While downlights and small light bulbs have been using LED technology for a while, standard LED bulbs have only just started to appear. Our next test of compact fluorescents includes the Philips Master LED bulb, one of the first 60W-equivalent LED lamps for typical household light fittings. It claims equivalent light to a 60W incandescent and a 15-year lifespan – at a \$60+ price tag. We'll have our First Look in July. CHRIS BARNES



Member spotlight

John Karllick from Sydney, NSW, is one of CHOICE's foundation members – he's been with us for more than four decades!

Why did you originally join CHOICE?

I strongly believe in the value of the concept of CHOICE. Without it, there is no way a consumer can evaluate similar products and make informed judgements as to which product fulfils requirements and provides the best choice.

What is the best purchase you've made using CHOICE as a guide?

My flat-screen TV is possibly the most expensive of my household purchases, so I nominate that, but over the years I have used CHOICE for all my major household purchases.

Where would you like to see the organisation in 10 years' time?

I believe that as time passes, it keeps on improving. I think CHOICE should become even more vocal in exposing scams, shonky practices and potentially dangerous products.

How would you spend your last \$20?

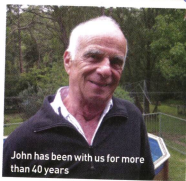
I hope that I never get to the situation of having only \$20 left to spend! But if I did, I would probably donate it to one of the worthy charities I support.

What do you do in your spare time?

My spare time is filled with family, going out with friends, doing Meals on Wheels several times per week, and, luckily, I am mobile enough to go on bushwalks and (badly) play tennis and squash.

Where is your favourite holiday destination?

Europe. I enjoy visiting friends and walking in great scenic places, whether they are in England, the Czech Republic (my country of birth) or elsewhere.



John has been with us for more than 40 years

A gut of it

New research has revealed three types of gut bacteria that may influence weight, gut inflammation, metabolism of drugs and explain why medicine and nutrient uptake varies between people. The types may be linked to blood type, metabolism or early exposure to microbes. The findings could aid in developing personalised medications, and detecting and predicting risks of disease such as intestinal cancer, diabetes and Crohn's disease. HANNAH GREW

COLOURFUL CHANGE

After banning artificial food colours in private label products last year, Aldi has become the first Australian supermarket to entirely replace them with natural or no colours in all products sold. According to Aldi, the move was sparked by research findings from the University of Southampton that linked certain artificial food colours to increased levels of hyperactivity in young children.



Goggled glaucoma

Regular swimmers should reconsider the type of goggles they use, according to research.

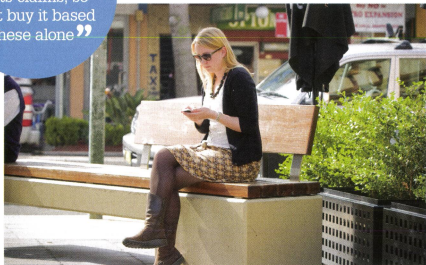
Goggles with a small rim diameter can cause increased fluid pressure in the eye, which exacerbates glaucoma symptoms for sufferers. Use of swimming goggles for several hours a week could also be a factor in causing the eye disease, where the optic nerve is destroyed, usually due to pressure inside the eye. The researchers reported a case of a 36-year-old man with otherwise unexplained glaucoma, who swam for four hours a week using small-rimmed goggles.

Ophthalmologist Dr William Morgan recommends screening every six months for those over 40, and the use of large rim-diameter goggles, particularly the large mask-types.

Traditional goggles with eye pieces measuring 35mm x 65mm or more are also acceptable.

Glaucoma affects about 3% of people over 50. Risk factors include family history, a thin cornea, diabetes, migraine, myopia, eye injury, high blood pressure and steroid use. KARINA BRAY

“The Defy lives up to some but not all its claims, so don’t buy it based on these alone”



Small but defiant

The Motorola Defy claims to be a tough, dust-proof and water-resistant phone. Since its release last year it has lost its Telstra Blue Tick due to changes in the manufacturing process, meaning you can’t expect superior use in regional areas. A scratch-resistant Gorilla glass is marketed widely for this phone, and we found dumping it in a travel bag for a couple of days rough travel with a set of car keys didn’t mark its face at all.

The touchscreen is very responsive, allows for Flash on websites and has a good five megapixel camera and video – you can switch seamlessly between the two. Disappointingly, however, it runs on an older Android operating system.

We found no issues with receiving or making calls; the sound is clear in a variety of circumstances. You need small hands for texting, although the built-in Swype feature of Android makes that a little easier to get used to. The Defy is simple to set up, although

the Motorola Motoblur feature focuses on social media through a large part of its setup, so you’ll have a lot of log-ins to begin with. This feature automatically delivers social media and email updates on screen, but also drains the battery rather quickly under heavy usage. The phone also slows down with many applications all open at once.

The Defy’s battery is easy to remove and comes with a screwed-in cover, good speeds for browsing websites and a crystal-clear screen. However, a swag of pre-installed applications make it a bit of a research project to start off with. It’s only available on Optus Business and Telstra plans, though it can also be bought unlocked from \$415.

CHOICE VERDICT

If you’re in the market for a good touchscreen phone but don’t have time to take great care of it, the Defy may be a useful upgrade. It does live up to some of its claims, but don’t buy it based on these claims alone. Its useful interface and integration of social media into the phone is a plus, as is its camera.

We’ll be reviewing this phone in our upcoming mobile phone test.

FIRST
LOOK

MATTHEW STEEN

Super powers

Unless you nominate a beneficiary with your super fund, you won’t be able to control how death benefits are paid.

A will states your wishes when you die, but don’t forget your superannuation, especially if you have a complicated family situation or have life insurance through your super.

Recent statistics from the Superannuation Complaints Tribunal show that death-benefit complaints are the most heavily contested. In the quarter ending December 2010, close to 70% of cases reaching the final review stage were death complaints.

In one case, the deceased made his mother the sole beneficiary of his will. But she was not the beneficiary in the superannuation trust deed. Despite being separated, the deceased’s spouse and children received the benefit instead.

Superannuation death benefits are broadly designed to compensate for future loss of financial support, which gives the trustee power to make determinations like the one above.

You can help channel benefits to the right person by registering a binding nomination, renewed every three years and valid only for financial dependents.

Not all funds will accept one of these. A non-binding nomination, where your preference is considered but final judgment is left to the trustee, is another option.

BRENDAN MAYS



MOTOROLA DEFY

PRICE Varies according to plan
CONTACT www.motorola.com



Your Say

We want to hear from you. If your experience is not good, then you can help other CHOICE members avoid scams and rip-offs. If you've had a great response to a complaint you've taken to a manufacturer or retailer, our members want to know about that too! Email us at yoursay@choice.com.au or write to Your Say, CHOICE, 57 Carrington Road, Marrickville, NSW 2204. Please note, letters may be edited for length and clarity.



Frothing mad

I must stick up for the Sunbeam Café Creamy Automatic Milk Frother, which you gave the thumbs down to in the March issue of *CHOICE* [page 8]. Here's another point of view: I find it brilliantly handy! We don't all want big espresso machines – been there, done that – and this little frother really does the trick. I like my lattes and use freeze-dried coffee, and using these together I get a lovely creamy latte. This frother is easy to clean, and I don't change the attachment so don't risk damaging it as you warned.

The Café Creamy might not suit the purists or those entertaining a lot of people, but it suits me fine.

BM Good, Gold Coast, Qld

CHOICE SAYS Thanks for offering a different perspective. While we weren't a fan of the Café Creamy, it's always great to hear about our readers' real-

world experiences on the products that we test. We're keeping an eye out for improvements in milk frothing technology, so be on the lookout for future tests.

Bank on the profits

It would be great if CHOICE could look at bank charges for international transactions. After a recent visit to the US, we noticed a 5% surcharge for international EFTPOS and ATM transactions on our bank account, which used to charge a flat fee for withdrawals. Surely a single transaction of \$20 would cost as much to transfer electronically

as a transaction of \$2000. Why, then, is our bank charging 5%?

Robyn Marsh, Darwin, NT

CHOICE SAYS Banking is one of our core campaign areas, and your experience is an illustration of the out-of-touch fees we oppose. The fact is that bank fees are rarely in line with costs, and the big players can charge you pretty much anything they like, so long as they disclose it in their terms and conditions.

The best way to keep costs in check is to be aware of your bank's charges, and look at alternatives when travelling abroad. There are some accounts that don't charge foreign transaction fees, and some banks offer travel cards.

To join CHOICE's Better Banking Campaign, visit choice.com.au/betterbanking.

LETTER OF THE MONTH

Post woes

Over the past seven years or so I've had a litany of troubles with Australia Post contractors involving the delivery of large packets and parcels.

They knock on our front door, and although we might be only a few metres away, by the time we answer they're usually back in the vehicle and the parcel has been dumped on our doorstep. So they're not finding out whether people are home and aren't taking parcels to the local post office. We arrived home one day to find \$120 worth of sheets sitting on our doorstep within view of the street, where anybody could have taken

them and we would never have known. I've complained, but without success.

Robin Howells, Nunawading, Vic

CHOICE SAYS According to Australia Post, the best way to secure your parcels is by asking the sender to request a signature on collection. The sender can also specify delivery instructions, such as whether the parcel can be left unattended at your home. If this is not possible, it may be worth placing signage on your front door specifying that your home is not secure and parcels should be taken directly to your post office – Australia Post's



disparity, but as it is I'm switching insurers for a better rate. Let this be a warning to others to ensure you carefully check the premiums when renewing.

**Vic Fatseas,
Bathurst, NSW**

CHOICE SAYS

Congratulations on being a savvy consumer, Vic. CHOICE has found that new quotes for insurance are often lower than renewed policies.

In most states and territories, green slips, also known as compulsory third party insurance, are only provided by one state-owned or government-licensed insurer. But in NSW and Qld they're offered by a number of insurers, and, as Vic found out, it pays to shop around. The best option in NSW is to visit www.maa.nsw.gov.au or phone 1300 137 600 for a comparison of rates, while Queenslanders can visit www.maic.qld.gov.au or phone 1300 302 568.

User says?

I think you run a great service, but I have not subscribed yet due to the cost. Why should we consumers pay for quality information about products? After all, we already pay to buy the products. I believe the companies supplying the products should pay an independent third party (such as CHOICE) to provide this information.

Matthew van Gent, Brisbane, Qld

CHOICE SAYS While we would love to be able to provide all our information for free, CHOICE is serious about our independence. It is only by remaining entirely member-funded and paying for all the products we review that we are able to maintain our integrity and remain accountable to Australian consumers. But we are taking steps to ensure CHOICE membership is affordable as possible.

Thumbs



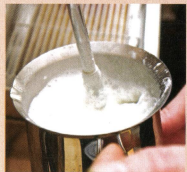
Naomi Lucas of Clarksons, WA, wants to thank Electrolux for their excellent customer service. Her three-year-old fridge stopped working during a long weekend, but it was 12 months outside its warranty period. She asked for the repairs to be done free of charge, and Electrolux promptly agreed, fixing the faults on the next business day.



Jane Norman from Kotara South, NSW, gives full marks for service to Award Brands in Victoria. Needing to replace broken hinges on a toilet seat that was out of warranty, she wrote to the manufacturer with a request to purchase the parts necessary. Three days later, the fittings arrived - gratis.



Steve from Morphettville, SA, gives a thumbs down to Nespresso for poor communication and warranty support. He bought a new coffee machine, only to have the milk frother break down within three months of purchase. But even though he was told a replacement would be ready within seven days as per their stated policy, Steve had no lattes or Nespresso-initiated contact until three weeks later.



ISTOCK PHOTO

Car insurance slips away

I recently received a green slip renewal from NRMA Insurance for \$357.79. Out of curiosity, I checked the NSW Government Motor Accidents Authority website for a comparison quote. The NRMA quote on the site was \$325.37 - \$32.42 cheaper than the price stated on my renewal notice. I phoned NRMA and received the same lower quote of \$325.37.

After complaining that my renewal showed a higher figure, I was transferred to another consultant, who assured me that the \$357.79 was accurate. I would've been happy to stay with NRMA if there wasn't such a



website specifies that packages can only be left unattended in "safe drop" locations. If you're still having troubles, you can also file a complaint with the Postal Industry Ombudsman. Visit www.pio.gov.au or call 1300 362 072 for more information.

Top 10 tips for surviving your home renovation

Doing up your home? Do your homework first, says Chris Pearson.

When you're renovating, "above all, have fun and look forward to the result," says David Hallett, general manager, southern region, for Archicentre, a building advisory service operated by the Australian Institute of Architects (AIA). That's easier said than done while you're still waiting for the dust to settle on one of the biggest and most expensive upheavals of your life.

But there are ways to ensure your renovation doesn't turn ugly. First, expect – and allow for – the unexpected, especially when it comes to time and money. Despite his industry experience, Brian Seidler, executive director of the NSW Master Builders Association (MBA), says his front yard "looked like the Somme within a week and I simply hadn't been prepared for that." (See Budget Blow-Out, page 19, for more.)

"Time and cost blow-outs are where you hear the worst complaints," adds Hallett. "Quality of the work is much less an issue." So do your homework and seek out good advice.

01 Set your budget



What can you buy for your money? Go to www.archicentre.com.au for per-metre cost estimates of the work you have in mind. Or, for a more detailed estimate, undertake a feasibility study. The not-for-profit Archicentre offers a concept design service for between \$1500 and \$2000, depending on the job. "It will give a sense of how the building looks and what it costs before you spend money on drawings and soil tests," says Hallett.

When setting your budget, avoid overcapitalising – if the work is more than one-third of the value of your home but doesn't go beyond the existing floorplan, you could struggle to recoup your outlay if you plan to sell later on. "Speak to a couple of real estate agents in the area and ask what they think the renovation would add to the value of your property," he says.

If the feasibility study reveals the work may not be achievable within the budget, you may have to do the renovation in two or three stages, five or so years apart. A master plan will tell you how to get to where you want to go. You don't want to go bullishly installing a spectacular new kitchen, for example, that is then in the way of any future alterations.

02 Find an architect and builder

When shortlisting a designer or builder, rely on word of mouth and acquaint yourself with the relevant websites (see page 18). The MBA is a good place to start and in most states offers a free online find-a-builder service, while AIA's website features profiles of practices in each state and territory. Then check out the prospect's experience and examples of previous work, and ask for references.

If you're using an architect, their role may extend beyond the design into the contract documentation. They can arrange technical drawings and specs for a building permit and builder quotes, as well as for use in construction. You might also engage them to administer the contract, liaise with the builder, keep an eye on quality and make progress payments.

In the case of the builder, as well as checking their credentials at the industry website, visit the consumer affairs website for your state. "Check if he or she has a licence number and if there are any marks against them – it's all in there," says Seidler.

"Check out a builder's work," suggests CHOICE member and seasoned renovator Paul Novosel. "They shouldn't be afraid to give you an address of a recent or current job." He adds that "finding the right builder is also so important – you both need to click. If they don't get on with you or your family, take that as a warning."

Ask to see their relevant insurance documents. In NSW, a builder needs home warranty insurance if the contract is worth more than \$12,000, as well as contract works insurance and public liability insurance, while an architect or designer requires professional indemnity insurance.



03 Gather a range of quotes



Quotable quotes

Forget three or four quotes – Susan Ardill (below) got six. For her attic conversion, which also included installing a new kitchen and bathroom, she sought quotes from two specialists in such conversions, which both came in at \$120,000 apiece. The icing on the cake was a quote over \$200,000, which specified a crane! She ended up accepting a quote for about \$68,000 on a recommendation from her architect. “All these people were recommended by our architect or by people we knew – none were unknowns,” she says.

The quote has since blown out to about \$95,000, which includes an extra \$8000 for steel joists to reinforce the floor and another \$12,000 because the living room ceiling had to be lowered to accommodate pipes for the bathroom, neither of which had been included in the original MBA Residential Renovations and Additions contract. But the total still falls far short of the other quotes and she is confident the builder hasn’t overcharged. Her advice? “Start your reno at the beginning of the year, so you don’t run into the Christmas rush.”



Susan got six quotes for her attic conversion

Seek at least three quotes to get a good sense of how much the job is worth (see right). And always allow for variations – “about 20%-25% extra is a figure that keeps coming up,” says Hallett. “But if you sign a contract with a builder for \$200,000, that equates to \$50,000, and your lender may not be happy to lend you this.” Ask for a spreadsheet outlining all the costs, right down to the benchtop material, tapware, roof tiles, even the position of power points and light switches.

“Prices vary enormously, so you need to specify these exactly. Even then, allow about 5% leeway.”

“Too many people go for the lowest quote and are horrified when everything is an addition,”

warns Seidler. “They pay more attention to the specs of a plasma TV than the details of a renovation. If you don’t specify the tiling, for example, the builder may go for the least expensive option.”

“If it seems too good to be true, it probably is,” says CHOICE member Maureen Cranwell. She and her neighbours were all lured by “an excellent quote” to have their roofs restored and repainted. After two years, the paint began peeling off and analysis of the flakes from one roof showed grease and grit, suggesting the roof had not been properly cleaned before it was painted.

04 Expect the unexpected

Arrange an inspection of the original building to avoid any nasty surprises that will affect the job, such as the presence of asbestos, termite infestation or rising damp, which can add to your budget and timeline. “You can’t put lipstick on a gorilla,” says Hallett. “While you’re doing the renovation, you should also fix defects in the original building. Whether it’s restumping, rewiring or termite damage, fix it while you have the tradespeople on site. Have this documented in the original specs and get it priced as part of the job

– it’s much more cost-effective to do this when tradespeople are there.”

05 Devise a timeline

“We get constant calls in August and September from people saying they need to renovate because the relatives are coming over for Christmas,” says Seidler. Hallett points out that the typical renovation is “not just two to three months or the five months the builder is on site – it’s double or treble that if you need council approval. Three months is quick for these to be approved.” And, if you make a significant change to the plan after it’s approved, it has to boomerang back to the council – and there’s no fast-tracking. “Do what you can to avoid a situation where you’re in a hurry or have a strict deadline, for example, before the baby is born or before Christmas,” says Novosel.



Arrange an inspection of the original building to avoid any nasty surprises that will affect the renovation and add to your budget and time, such as the presence of asbestos, termite infestation or rising damp

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NSW (02) 8586 3555
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Tas (03) 6234 3810
www.mbatas.org.au
NT (08) 8922 9666
www.mbant.com.au
ACT (02) 6247 2099
www.mba.org.au

06 Scrutinise that contract

In NSW, if the work is worth more than \$1000 – or \$5000 in Victoria – a contract is a legal requirement. Standardised contracts should be sourced from the AIA for architects, or MBA or Housing Industry Association (HIA) for builders. The nature of the contract will depend on such things as whether an architect project-manages the renovation and the nature of the remuneration. It is generally either lump sum or cost-plus, where the contractor is paid for materials and service is on top of that, either as a percentage or an hourly rate.

"Most people think lump sum is better, but most builders will cover every contingency within that," says Seidler. "With cost-plus, both the client and the builder know where they stand in terms of money and the builder tells the client how much is being spent. It takes into account unseen and hidden issues, such as termite damage and asbestos removal."

Before you sign, make sure all the following are included:

- GST, which should not be added at the end as an afterthought.

- Clear start and especially finish dates.
- A liquidated damages clause – money that can be deducted due to extra costs that arise from a breach of the contract. If the job runs late, for example, you may want to claim rent from the builder.
- Within a lump-sum contract, there will be provision for variations to cover extras. Make sure that all variations have your written approval.

07 Cosy up to the council

Before you even sketch out designs on the back of an envelope, you need to research relevant planning controls and approvals, known as planning permits in some states and DAs in others. "The average client doesn't know there are planning and building controls," says Hallett. "These will have a huge bearing on what you can and cannot do."

You may, for example, be planning a first-floor addition that overshadows your neighbour's courtyard or a carport that's too close to the street. Changes to building heights and setbacks, heritage considerations and tree removal are just some of the things that may require council approval – and, in an older house, you may have to undertake an asbestos survey. "The smart renovator finds out the planning controls early and then designs within them," says Seidler.

\$31bn

The projected value of home renovation in Australia for 2010/11.



08 Move out or stay put?

"People don't want to move out, but they pay the price of staying," says Seidler. Especially when you have young children, you need to think about the dislocation it causes. Staying brings dust and the possibility of finding hazardous materials such as asbestos. "And as tradespeople can start work at 7am and by law are not allowed past a certain hour, if you want them to arrive at 9am, that will extend your timeline." If you move, factor rent, removals and storage into your renovation budget.



CHOICE tester
Corinna Horrigan
shares her experiences
of knocking down and
rebuilding her home at
choice.com.au/rebuild.

09 DIY finishing touches

Don't be afraid to try some reno jobs yourself, says Novosel, such as gap filling, skirting, fixing doors, floorboards or patching walls, especially if you're good with your hands. "That way, you're three-quarters of the way there. If you're wanting to save dollars, painting and finishing are tasks that you should be able to do yourself quite easily. But don't attempt any electrical work, as you must be licensed for that."



10 Mind the quality

Mismatched bathroom tiles, painters who miss entire architraves and ceiling panels, window frames that don't match, built-ins where you can't open the drawers because the measurements were wrong – "I could write a book on the things that tradesmen have done (or not done) in our house in the past 25 years," says CHOICE member Pam Henwood. "You have to watch tradespeople like a hawk and know a little about what the finished job should look like – in short, you have to be involved."

The alternative is to engage someone to oversee the building process, such as a project manager, building consultant or architect, and sign off the construction stages. "Most people think they can do it themselves, but this may be false economy," says Seidler. "Remember, you are going to have to live with improper work every day."

That said, don't expect perfection. "Building is not an exact science," he adds.

"You build to tolerance levels. NSW Fair Trading [Building Commission in Victoria] publishes a tolerance guide. If the guide allows it, that gap in the door or window is okay. Not all building materials are straight, so you have to make allowances."

And what requires special scrutiny? "The finishing trades, such as concreting and tiling, but most complaints are about waterproofing. If this is not done properly, the damage can be horrific. Get the whole bathroom done to be on the safe side."

If the end result is not to your satisfaction, get the builder back to rectify it. Still unhappy? Call in an independent umpire from the consumer affairs body in your state, which can provide dispute resolution. ■



Brian's renovation before (left) and after (bottom)



Budget blow-out

With his experience in the industry, executive director of MBA NSW, Brian Seidler, knows the ins and outs of home renovation better than most. However, he says his first renovation was "an education process" and thinks he might buy brand-new next time.

He extended his 1950s heritage home in Sydney's northern suburbs to accommodate two more bedrooms, a bathroom, new kitchen and laundry.

"We were intending to sit it out, but after the first week, we realised it would be impossible," he says. The family moved out for a year, just around the corner, where he could keep an eye on the process. "At \$500 a week rent, that was \$25,000 we hadn't foreseen."

Cost blow-outs are a big risk of any renovation. "When you're adding extensions to an old building, old wiring hits new wiring, old plumbing hits new, so while you peel back the fabric of the building, use that opportunity to rewire and re-plumb. You get peace of mind when the old part of the house has new innards."

Behind the scenes

We talked to a wide range of stakeholders in the insurance industry, including ASIC, the Australian Prudential Regulation Authority (APRA), the Financial Ombudsman Service (FOS), the Insurance Council of Australia (ICA) and lawyers on the front line fighting denied claims on behalf of homeowners. We also looked closely at what the federal government is up to.

What emerged was a complex picture with an underlying theme. Current proposals by government to establish a common definition for riverine floods and introduce simple one-page explanations of what policies do and don't cover may help homeowners down the track, but homeowners will still be on their own when it comes to making sure they have the right amount of cover.

In particular, one fact speaks volumes. Although other aspects of the insurance business are regulated, the industry itself is responsible for how policies are written – and Australian insurers continue to make up their own rules.

Lessons from the floods

Legal Aid Queensland consumer protection lawyer Catherine Uhr offers CHOICE a particularly instructive look at underinsurance following the floods.

"Insurance salespeople had apparently been making sales without telling people there's a big hole in their policy," she says. "A lot of Queenslanders thought they had no risk – they didn't even know about the 1974 floods. And some people that come in to see their insurer have been dissuaded from making claims – they've been

told not to bother."

According to Uhr, Legal Aid Queensland "approaches each case with a simple question: was the policy clear and transparent?" Most times, the answer is a resounding no. "It's a dog's breakfast, because every policy is different. We have to argue what a storm is, for instance, because all the insurers have different definitions."

This view is backed by Assistant Treasurer and Minister for Financial Services, Bill Shorten, who is championing change in the industry. He says the discussions going on in Canberra today also took place after the 1974 floods. "It's a 37-year-old problem."

Doing the sums

Melbourne lawyer, and this year's Lifetime CHOICE Consumer Champion, Denis Nelthorpe (see CHOICE, April 2011, page 20), has a long history of helping consumers get a fair shake from insurers. Now a consumer representative on the industry's Code Compliance Committee, he helped homeowners battle rejected claims following the 2009 Victorian bushfires and is a longtime critic of dodgy dealings by insurance companies.

Nelthorpe says natural disasters present special risks for Australian homeowners, most of whom have insured their home and property for a set amount (known as sum-insured policies). What most homeowners fail to take into account is that, as in the aftermath of Cyclone Larry, the costs of rebuilding skyrocket when the weather clears. "People insure on the basis of their own home getting destroyed, not the whole neighborhood," he says. "The entire town of Marysville was flattened by the 2009 bushfires – there was virtually no infrastructure left. There was nowhere for labourers to stay, nowhere to buy lunch, everything had

15%

Claims rejection rate
after the Queensland
floods



to be trucked in. That meant costs for materials and labour went well above what homeowners had estimated before the fires."

Many policyholders also find themselves underinsured when it comes to upgrading to meet new building standards. "Many policies say they'll pay 10% or 15% above the sum for upgrades, but that's rarely enough to meet the new codes," Nelthorpe says. This leads to his larger point – that sum-insured policies usually work to the advantage of insurers. "Sum-insured policies are a blatant manoeuvre to share the pain of loss between policyholder and insurer. In all my years dealing with insurance issues I have not found any single consumer benefit of a sum-insured policy over a replacement policy."

Flawed analysis

Even when natural disaster is not a factor, Nelthorpe believes Australian homeowners usually underestimate when estimating the value of their homes and possessions. "All the evidence shows that consumers get their information from the insurer or from calculators on insurers' websites. Most people have no idea how to calculate a sum-insured policy."





Nelthorpe points out that many homeowners generalise rather than itemise the contents of their homes. If you own valuable pieces of furniture, high-quality rugs, high-end fixtures or expensive construction features, for instance, their value must be accurately calculated in order to be covered.

Muddy waters

Complex and confusing policies are a major reason that homeowners, according to Uhr, "have been incredibly shocked to find out they have nothing but studs, cement slabs and a roof left and no insurance payout to rebuild" following the floods.

"There are some policies that I read and re-read and still don't know what they're on about," she says. "They're as clear as mud."

ICA communications advisor Sandra Van Dijk, concedes "more work needs to be done" to improve product disclosure. "This is another

area where we expect reform and talks are currently under way."

One crucial stakeholder takes a different view, however. According to Warner, the FOS asked major insurers to send in their policies for review following the Queensland floods. It found that "the policies from the major insurers are in plain language – the problem is that consumers have not read them." ■

Even when natural disaster is not a factor, Australian homeowners usually miss the mark when estimating the value of their home and possessions.

Graham Warner, dispute resolution manager at the FOS (which handles insurance complaints), agrees. "Most homeowners do not calculate the sum properly. The insurers don't know what's in your house. Website calculators can help, but they are only guides".

Underinsurance traps

CHOICE asked industry experts for a breakdown of the most common underinsurance – and over-insurance – pitfalls over the past 15 months (not including flood).

- If you're renting, make sure that your policy is geared towards tenants and not homeowners. Tenants are often over-insured and paying for cover they can't use.
- Describe what you are insuring down to the last detail. The valuation should include an assessment every six months of any new household items or building improvements.
- Consider a total replacement or extended replacement policy rather than sum insured, especially if you have substantial property or live in a disaster-prone area. (Extended replacement policies pay a certain

percentage above the sum insured to account for rebuilding costs.) Replacement policies generally have higher premiums. The trade-off is knowing you can recover everything you've lost at its current value.

- If you have a sum-insured policy, recalculate the sum each year to account for the increase in rebuilding costs.
- Contents insurance generally does not cover jewellery, computers, mobile phones or other valuables beyond the confines of your home. If you want to extend your range of protection, check with your insurer.
- Don't make a final decision about your policy based on price alone. Look at a number of policies that will cover the cost of rebuilding your home and replacing its contents according to where you live, then narrow it down

based on the most competitive premiums [see CHOICE, November 2010, page 40, for our comparison of 45 policies].

- Manage your own risks. No matter how much you pay in premiums, your insurer is unlikely to pay when unmaintained trees cause damage, for instance, or dilapidated roofs are damaged by hail.



- Read your policy cover to cover and know what it means. If you have any questions, keep asking until your insurer clears up the confusion – preferably in writing. Next to your last will and testament, it could be the most important document in your life.

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Surging supply

Some unscrupulous solar operators are ignoring safety in their effort to cash in on fast-disappearing government money. Zoya Sheftalovich explains.

With solar photovoltaic (PV) panel feed-in tariffs being wound up or restricted around

Australia, and generous federal subsidies being cut, consumers are rushing to get systems connected before time runs out. And while opportunities to make a quick buck are fading, there are still plenty of fly-by-night installers keen to get their fingers in the solar rebate scheme pie.

"Mostly the big, established solar companies are very good," says Dan Cass, a clean technology lobbyist and long-time climate campaigner. "But we hear a lot of bad stories about the jockeys who come in for a quick buck. It comes down to bad policy from state and federal governments who treat solar as a vote-winner, not as a serious industry.

Solar rebates and other incentives are very stop-start, creating a boom-bust cycle. This encourages bad players to move in, undercut with cheap components and bad installations and then fold.

"It hasn't been a particularly responsible policy, and safety hasn't been given priority."

The Clean Energy Council (CEC), an industry association representing

Australia's clean energy sector, delivered a presentation at the Appropriate Technology Retailers Association of Australia (ATRAA)

conference in May this year, outlining a decline in installations deemed "high quality" according to their 2010

audits. Ausgrid (formerly Energy Australia) also presented defect statistics. Their report, based on information gathered during their audits over the previous year, states: "with the

"With the rapid rise in solar systems comes higher defect rates, as new, inexperienced people [are] entering the industry."



Examples of poor system installations shown by Ausgrid and the Clean Energy Council at their ATRAA conference presentations

rapid rise in solar systems comes higher defect rates as new, inexperienced people [are] entering the industry... Rushing to get work done creates errors." Ausgrid says the number of installers has increased by 67%, from 2572 to 4322, since July 2010.

The most common defects found by Ausgrid were incorrect wiring and ▶



2009

58%

of solar panel installations
were high quality

12%

required attention or
were substandard

2010

7%

of solar panel installations
were high quality

29%

required attention or
were substandard

Source: CEC, based on
audited systems.

circuit breakers, incorrect and missing labels and water getting into the system. Incorrect meter installation was also identified as a problem, but this isn't an installer issue.

Industry associations National Electrical and Communications Association (NECA) and the Electrical Trades Union (ETU) were concerned about the quality of solar panel installations in early 2010, so they approached Energy Safe Victoria (ESV), an independent electricity, gas and pipeline safety and technical regulator. "There was evidence that non-electrical tradespeople had undertaken installations and that they weren't done to the required standards," says Graeme Watson, secretary director of Electrical and Electronic Industry Training Ltd, which is affiliated with the ETU.

"We were hearing there were plenty of problems – everything from panels falling off roofs through to the wiring being done incorrectly," explains Dominic Feenan, spokesperson for NECA. "We don't want another [pink batts insulation] situation. We wanted further regulation."

An audit of 81 solar systems last year found serious safety concerns, including incorrect switches or circuit breakers

ESV commissioned an audit of solar systems around Victoria, and its July 2010 report revealed more than 32% of the 81 systems audited had problems. Seventeen were non-compliant with Australian Standards due to poor labelling, but the other nine raised more serious safety concerns, including incorrect switches or circuit breakers. "The use of a wrong switch is unsafe because of the potential to ignite and cause fire," the report states.

There is some debate over the magnitude of the safety risk.

ESV states that the risk is minimal, as switches are designed

to fail safely. The report

says that to become a fire hazard, ignition would have to occur while being switched off under load and the switch housing would have to fail. Flammable material would also need to be close by.

But Watson believes the fire risk is significant, particularly for contractors and electricians. "It's of major concern to all, including contractors, not just the installer. In future, an electrician may attempt to cut into that system assuming the correct components had been used, which would be a disaster."

Dr Muriel Watt, chair of the Australian PV Association (APVA), says there haven't been any major problems thus far, but "electricity is always potentially a dangerous thing. If you use the incorrect wiring, there are possible problems such as fires." However, she says that most wiring issues have been rectified as a result of tougher inspection regimes.

The Office of the Renewable Energy Regulator (ORER) has ramped up the auditing of installations, with more in-depth inspections of systems. The ORER will

look at a number of systems each year to ensure they comply with relevant guidelines. A spokesperson from the ORER says these inspections are due to begin before July this year.

The Department of Climate Change and Energy Efficiency has also been made aware of safety issues. "There have been some instances in the past of non-compliant circuit breakers and wiring," a spokesperson told CHOICE. "The CEC wrote to all accredited installers in late January 2011 reminding them of their compliance obligations and requiring them to review their installations and confirm their compliance in this matter." ■

Insulating against risk

The not-for-profit Australian Solar Energy Society (AuSES), which is launching an industry certification program in August, says a good quality PV system should provide energy output for decades.

According to CEO John Grimes (right), "as the market has ramped up we've grown increasingly concerned about the quality of components and workmanship of installations.

Competition means people are trying to get the lowest possible price for components, and installers are paid a very small amount, so they have to do multiple installations really quickly. In most cases, investing an extra \$1000 will secure top quality components that will last 20 years or more."

To ensure a long-lasting, problem-free system, look out for the following warning signs:

- Refusing to visit the property or take note of roof angle, sunlight, shading and temperature before completing a design and quote.
- Ignoring or not looking at the household's energy consumption trends.

- Not including grid connection and/or metering costs in the quote.
- A lack of accreditation with the CEC, or the use of inverters, modules or other products that aren't approved by the CEC. Accreditation and approval information can be found at solaraccreditation.com.au.
- A quote that is significantly cheaper.
- A short warranty period. Most installers guarantee workmanship and materials for at least five years.
- A warranty provided by the importer rather than the manufacturer of products used in your installation.
- Failure to provide you with a system manual that provides operation, maintenance and safety information, and estimates system output.
- Poor or no feedback about the installer on web forums such as those of Whirlpool and Alternative Technology Association, and reluctance or inability to provide contact details and references of previous clients.



On notice...

The ACCC's chair Groeme Samuel has warned solar companies that performance claims and information given to consumers must be accurate. "Claims should be clear and not suggest effects that can't be substantiated."

Who you gonna call?

If you believe your PV system is incorrectly or unsafely installed, and you can't reach an agreement with your installer, here's who to contact.

- Sub-standard installation can be reported to the CEC.
- If the installation is not meeting the forecast efficiency gains, contact your state's consumer protection agency (see choice.com.au/consumeraffairs) or local electrical authority.
- If the installation is unsafe, the first port of call is the local electrical authority.
- If a system doesn't meet the requirements of the Renewable Energy Target legislation, contact the ORER.
- Breaches of Australian Standards or state legislation are dealt with by state and territory governments.

Comedy of errors

Alice (not her real name as she's currently in a dispute resolution negotiation) decided to kit out her NSW home with solar panels and signed up with an established business. Her initial quote needed expensive changes. While this was due to a technical mistake made by the system designer, Alice had to bear the cost as standard industry contracts allow for a variation in prices. "Plus, the NSW

feed-in tariff was reduced the day I signed. I was backed into a corner."

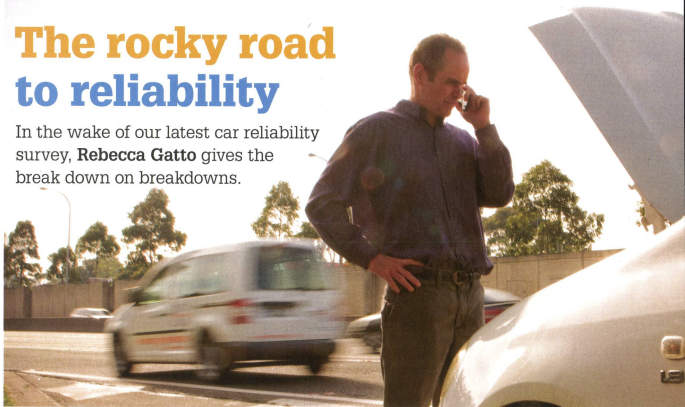
After extended delays, Alice's ground-mounted system was finally installed in May 2011. The panels needed to be tilted for winter, which she was told was a DIY job. What happened next was shocking. "I did it, then one panel fell off – it hadn't been screwed in. Other panels were also missing screws. They weigh over 18kg, and my kids and I had been out there!"

To top it off, the panels were positioned poorly – the back row was shaded in winter. "These things are concreted into the ground. There's no easy fix. There's plenty of room so there shouldn't be shading issues."

For more information see our solar panel buying guide at choice.com.au/solarpanels

The rocky road to reliability

In the wake of our latest car reliability survey, **Rebecca Gatto** gives the break down on breakdowns.



NUTSHELL

- More than 7000 vehicles, all owned by CHOICE members and manufactured between January 2002 and October 2009, were assessed for reliability in a recent survey.
- The most reliable makes of cars are Honda and Toyota.

Advanced technologies used by car manufacturers aim to make your ride as smooth and safe as possible, with the Australasian New Car Assessment Program (ANCAP) awarding more and more vehicles the highest safety rating. But while manufacturers are upping their game in these areas, are they doing enough to rev up their reliability?

Late last year, we surveyed our members to find out. Our analysis covered vehicles made between January 2002 and October 2009. Not surprisingly, we found the number of cars that had broken down the previous year increased with age. Reliability is determined according to

whether a car has broken down in the past 12 months. A breakdown is defined as the car breaking down while moving, failing to start or being unavailable for at least a day due to repairs. Of the one- to two-year-old models, 19% had broken down in the past 12 months. This increased to 26% for models between three and five years old and 32% for six- to nine-year-olds.

Our results confirm **Toyota** and **Honda** are the best all-rounders. They receive high reliability scores across all three age groups and perform well for consumer satisfaction and brand loyalty (see table, opposite). **Peugeot** scores lowest for reliability of older cars, while for newer cars manufactured between 2008 to 2009, **Mercedes** had the highest percentage of breakdowns in the past 12 months.

The best and worst

Cars from **Toyota** perform well in all age groups, with some **Mazda** and **Nissan** models also receiving top scores for reliability. (Bear in mind that due to small sample numbers, not all models could be represented.)

Members were also asked about problems they had with their cars in the previous 12 months that didn't cause the vehicle to break down or fail to start.

The most commonly occurring problems are listed here by make of car. Where "other electrics" is mentioned, this refers to aspects such as lights, radio and electric windows.

2002-2004

Reliability

The **Toyota Corolla 1.8L (ZZE122R)** is the standout for reliability for the six- to nine-year-old cars. Only 12% experienced a breakdown in the previous year, a significantly better result than the average for this category. Overall, 32% of models experienced a breakdown.

Problems

Ford: Brakes (18%), interior (13%), steering (10%)
Holden: Engine (cooling) (12%)
Volkswagen: Body exterior (25%)

2005-2007

Reliability

Almost half of the **Ford Territory 4.0L (SY)** models broke down in the past 12 months. This is significantly worse than other models in this category – overall, 26% experienced a breakdown.

Problems

Volkswagen: Air con (7%), fuel system (5%)

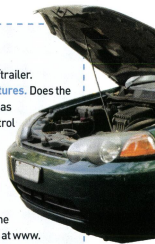
To see how other cars scored for reliability, and to find out how we survey, check out our online story at choice.com.au/carreliability

Before you buy

- **Set your price range** and know exactly what you're looking for.
- **Check whether the model has an ANCAP safety rating** Look for a vehicle with a four- or five-star rating, as these offer the highest level of protection in a crash.
- **What's the fuel efficiency?** The Green Vehicle Guide (www.reenvehicleguide.gov.au) has a fuel calculator.
- **Consider ongoing service and repair costs.** Your car will need regular servicing (generally every

- 5000km-10,000km). Also check how much a major service (for example, water pump or brake pads) will cost. NRMA's website (mynrma.com.au) has a car-operating costs calculator.
- **Research insurance premiums.**
- **Consider your lifestyle**, e.g. rear-seat space for children or extra boot space.
- **Where are the anchorage points for child restraints?** These points differ between makes and models.
- **Look at towing capacity** if you plan on

- towing a boat/caravan/trailer.
- **Look out for safety features.** Does the car have features such as electronic stability control (ESC), front, side and head airbags and anti-lock brakes?
- **If you're buying a used car, consider a vehicle inspection** and check the used car safety ratings at www.racv.com.au.



Ford: Other electrics (15%), brakes (14%), body exterior (11%), interior (11%), suspension (9%) driveline (7%), exhaust system (3%).

Citroën: Computerised engine management (17%)

Holden: Engine (cooling) (7%)

Peugeot: Fuel system (14%), exhaust system (5%)

Toyota: Seven percent of Corolla 1.8L owners experienced a problem in the previous year.

2008-2009

Reliability

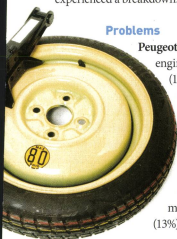
Mercedes-Benz is the least reliable brand of car in this age group, with 36% breaking down in the year prior to the survey. Overall for this age group, only 18% experienced a breakdown.

Problems

Peugeot: Computerised engine management (15%), fuel system (9%)

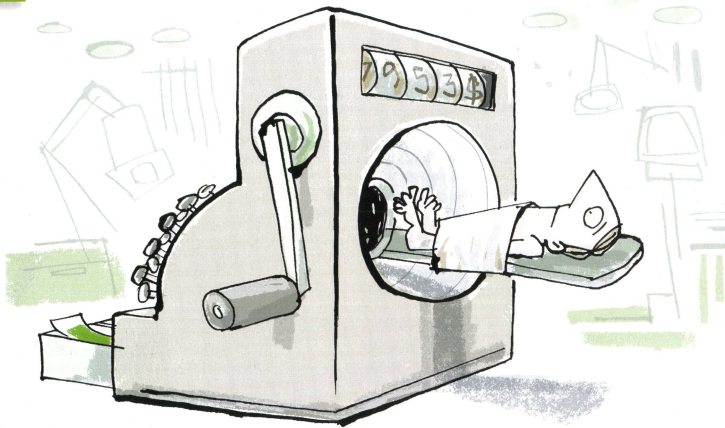
Ford: Suspension (5%)

BMW: Computerised engine management (13%)



				WITHOUT BREAKDOWNS		
	Total cars	"Fairly" or "very satisfied" (%)	Would buy the same make again (%)	2002-2004 cars – no breakdown in the past 12 months (respondents)	2005-2007 cars – no breakdown in the past 12 months (respondents)	2008-2009 cars – no breakdown in the past 12 months (respondents)
Audi	117	93	91	na	67 (46)	65 (46)
Mercedes-Benz	183	92	94	68 (56)	79 (72)	64 (55)
Toyota	1162	90	96	797 (350)	801 (522)	87 (299)
Honda	522	90	95	801 (133)	821 (262)	87 (130)
Mazda	579	89	96	69 (150)	831 (246)	88 (191)
Land Rover (A)	58	88	90	na	na	na
Lexus	85	88	96	na	69 (42)	na
Subaru	724	88	96	72 (243)	77 (314)	84 (176)
Suzuki	107	88	93	na	91 (43)	91 (47)
Hyundai	291	87	96	63 (64)	74 (111)	84 (117)
Volkswagen	429	87	94	56 (36)	64 (213)	82 (184)
Mitsubishi	334	86	95	77 (119)	72 (130)	86 (88)
Nissan	307	86	92	70 (115)	84 (131)	84 (64)
Other (B)	216	86	87	59 (229)	61 (153)	75 (182)
Kia	86	84	86	na	78 (40)	na
Volvo	81	84	93	na	79 (34)	na
Holden	646	82	86	58 (255)	63 (254)	72 (140)
Citroën	89	82	84	na	65 (46)	na
Ford	575	79	87	59 (184)	65 (249)	73 (151)
BMW	158	79	89	53 (57)	63 (54)	68 (47)
Peugeot	153	74	77	50 (42)	55 (76)	74 (35)
Renault (A)	61	74	75	na	na	na
ALL CARS	6963	86 (6963) ^A	92 (6963) ^A	68 (2033)	74 (3038)	81 (1950)

USING THE TABLE 1 Indicates significantly higher than the overall (pooled) sample, ↓ indicates significantly lower. Figures in brackets/italics represent the sample size. (A) Land Rover and Renault didn't meet the minimum sample size requirements for reliability and so are represented in the "other" group. However, across cars of all age groups, they receive enough results to be considered separately for consumer satisfaction and brand loyalty. (B) The "other" group is comprised of all cars for which makes did not meet the minimum sample size requirements within each group. ^A All cars had 58 missing responses (due to respondents not completing this section of the survey). na Not applicable – there wasn't a large enough sample size to be included in the analysis.



Imaging all the people

Martin Bray looks at the risks of different types of medical imaging, tells you how to avoid large gap payments and busts some myths along the way.

NUTSHELL

- Some imaging technologies carry higher radiation risks than others.
- Gap payments can range widely, shop around.
- Regardless of the name on your referral, you can go to any imaging provider you wish.

Medical imaging such as X-rays, ultrasound and CT can help with diagnosis, treatment, and monitoring of many medical conditions, from bone fractures to cancer. Medical imaging is done by a radiographer, or sonographer for ultrasound. Evaluation of the image

for clinical purposes is done by a radiologist, a specialty that requires a medical degree and further study.

GP-referred imaging is largely paid for by Medicare, which has a scheduled fee for imaging services and provides a payment for each one (see page 31). Patients may also need to contribute directly when there is a gap between the Medicare rebate and the amount charged by the provider, or in rare instances, where no Medicare rebate exists.

If a provider is prepared to accept the rebate as full payment, they can bulk bill Medicare, cutting the patient out of the payment process and reducing both administration and accounting costs.

Bridging the gap

Discuss public and private options with your GP, but remember, regardless of the name on the referral, you can go to any imaging provider you choose. Public providers (and some private ones) don't charge a gap; however, out-of-pocket costs can be high – see Adelaide/Sydney snapshot, page 30. So shop around, and don't forget to check waiting times.

A gap payment can be the trade-off if you want the convenience of a specific local private provider, with easy parking and no waiting. You can also ask your GP to request bulk billing, but be aware that many GPs will not.

AMA out on a limb?

The Australian Medical Association's (AMA) suggested fees are substantial, with big gap payments to match. By contrast, the private providers' Australian Diagnostic Imaging Association does not make fee recommendations. CHOICE's provider survey for Adelaide and Sydney, using a CT chest scan as an example, found charges were nowhere near the AMA suggested fees.

The AMA claims increases in its recommended fees keep pace with average weekly earnings and that the gap sizes are a result of Medicare rebates going down since 1998. However, we believe that other factors, such as efficiency from improved technology and economies of scale in a growing market, are also factors. We asked the AMA to justify their suggested fees in terms of changes over time in radiologist incomes, but it was not willing to provide this information. However, several industry commentators told

CHOICE that radiologist incomes are "OK" – neither at the top or bottom of the list of medical specialties.

Squeezing the privates

Around Australia, public providers are offering imaging services, providing bulk billing and generating income from Medicare. However, private providers say that hospital inpatient work gives public providers competitive advantages in economies of scale, while Medicare payments add a further squeeze, having stayed relatively static for a long time.

CHOICE believes increased competition drives down price for consumers – as it does in many other areas – but acknowledges that Medicare bulk billing rates should be enough to fund on-site senior radiologists and a complete range of quality services. The federal government must consider whether current rates can do this. ▶

100%
of scheduled fee: Medicare bulk
bill rebate for MRI in 2011
federal budget.

THE MRI MYTH

An imaging provider must have a federal licence and conform to rules if Medicare rebates are to apply to magnetic resonance imaging (MRI). These licences are restricted, but there are plans to almost double the number by 2015. Typical rules require a specialist referral and certain clinical criteria. Changes were flagged in the 2011 federal budget allowing staged introduction of GP referrals, starting with children under 16.

So why ration this imaging, which could replace up to one-third of CTs? (MRI is best for bones, joints, tendons, the spine and brain tumours, while CT is best for the lungs and chest cavity in general.) Conventional wisdom has it that MRIs are rationed because they are extremely expensive. This is not true – the cost is 15%-20% more than CTs to a high-volume public facility (up to 50% more for private). The likely reasoning is that if, say, 25% of CT work went to MRI, the CT "shortfall" would soon be filled with "new" screening services, such as CT cardiac angiogram screening. The government is concerned about limiting health budget blow-outs.

MEDICARE REBATES AND AMA FEES

	Medicare item number	Medicare scheduled fee, Nov 1998 (\$)	Medicare scheduled fee, Feb 2011 (\$)*	Medicare rebate (85% of scheduled fee) (\$)	AMA suggested fee (resulting gap payment) (\$)**
Ultrasound – abdominal aorta	55276	172.95	169.5	144.08	450 (305.92)
CT – chest	56301	305.05	295	250.75	780 (529.25)
X-ray – leg	57524	52.75	49.40	42	144 (102)
CT – lower spine	56223	na	240	204	640 (436)
MRI – spine	63176	499.50	358.40	304.65	1365 (1060.35)
OPG – dental	57963	50.65	47.40	40.30	140 (99.70)
Barium meal – upper alimentary	58909	96.15	89.95	76.50	265 (188.50)

* Unchanged since 2007, and lower than in 1998. ** The AMA does not reveal its suggested fees to patients.

na Not applicable.

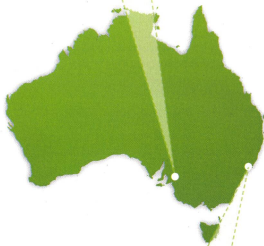


A tale of two cities

We compared the cost of a spiral CT scan of chest across a range of public and private providers in Adelaide and Sydney. Medicare's scheduled fee for this procedure is \$295, with a rebate benefit of \$250.75.

Adelaide, SA

Only the public sector and a few private providers bulk bill in Adelaide. All public sites may soon be combined as one business unit, SA Imaging, which will benefit regional South Australia if SA Imaging takes back the outsourced work in public hospitals, where sizeable gaps are incurred for GP referrals.



Sydney, NSW

Strong competition in the private sector means most providers in Sydney bulk bill. Ultrasound is often the exception, where the gap is usually \$50-\$80. Parts of the bulk-billing public system have limited capacity, as hospital patients are prioritised, but waiting time is usually minimal in both the public and private systems.

ADELAIDE

Provider	Owner	Fee (\$)*	Gap (\$)	Bulk bill exceptions
Southern Imaging, Bedford Park	SA government	BB	0	na
QE Medical Imaging, Woodville South	SA government (Queen Elizabeth Hospital)	BB	0	na
Repat Radiology	SA government (Repatriation General Hospital)	BB	0	na
Lyell McEwin Hospital (A)	SA government	BB	0	na
Royal Adelaide Hospital (A)	SA government	BB	0	na
Health Scan, Marion Domain	Idameno	BB	0	na
Benson Radiology, Woodville	Radiologist	BB	0	na
Woodville Diagnostic Imaging	Radiologist	BB (C)	0	na
Jones and Partners; Perrett Medical Imaging (B)	I-Med	331	80	Pensioner, HCC, GP request
Benson Radiology	Radiologist	371	120	Pensioner, HCC, GP request
Radiology SA	Radiologist	391	140	Pensioner, HCC, GP request
Australian Radiology Clinics	Radiologist	411	160	Pensioner, HCC, GP request

SYDNEY

Provider	Owner	Fee (\$)*	Gap (\$)	Bulk bill exceptions
Public hospitals in the Sydney region	NSW government	BB	0	na
San Radiology	Sydney Adventist Hospital	389	138	Pensioner, HCC, GP request
Macquarie Street Radiology	I-Med	381	130	Pensioner, HCC
Pittwater Radiology, Dee Why	I-Med	331	80	Pensioner, HCC, GP request
Southern Radiology, Bondi Junction and Hurstville Central Shopping Centre	Radiologist	BB (D)	0 (D)	na
Bondi Junction Radiology	Radiographer	BB	0	na
Chatswood Radiology	Radiologist	BB	0	na
Frenchs Forest X-ray and CT	I-Med	BB	0	na
Hub Radiology, Blacktown	Radiologist	BB	0	na
North West Radiology	I-Med	BB	0	na
Pittwater Radiology, Mona Vale	I-Med	BB	0	na
South West Radiology, Liverpool	Radiologist	BB	0	na
Ultrasound Radiology, Campbelltown and Liverpool	I-Med	BB	0	na

AMA SUGGESTED FEE \$780

GAP \$529

* Except where indicated, all services are bulk billed. (A) These two public hospitals don't advertise a 'shop front' imaging service. They are near capacity with inpatient and outpatient clinic work, and some GP referrals may involve a significant wait – more than a month for the chest CT at the Royal Adelaide. (B) I-Med has a fee for service contract at Narrung and three other country public hospitals. GP referrals at these public hospital locations are not bulk billed. (C) This company bulk bills all services except MRI. (D) CTs are bulk billed, but all other imaging except dental OPG has a gap to be paid. na Not applicable. HCC Health Care Card. BB Bulk billed.

Radiation risks

Radiation is measured in sieverts (Sv) and accounts for both the amount absorbed and the sensitivity of different body parts to radiation. A millisievert (mSv) is one-thousandth of a sievert. Radiation leakage at the Fukushima nuclear power station after Japan's tsunami earlier this year was up to 400mSv/h between reactor buildings and 0.6mSv/h at the main gate.

- **X-ray** is the oldest, quickest and least expensive form of imaging. There is loss of fine detail in images of some soft tissues because various structures are overlaid within the image. Typical effective radiation dose: limbs 0.01mSv, chest 0.02mSv, abdomen 1mSv.
- **Computerised tomography (CT)** uses X-rays to reveal tissues with greater precision because the image is a cross-section, not an overlay. There are now lower radiation dose options.

CT or not CT?

The idea that modern imaging equipment exposes patients only to modest radiation isn't true of CT scans. Unnecessary chest CT scans could result in about 40 fatal cancers a year in Australia. To put the exposures in context:

- Exposure is cumulative, adding up over a lifetime and incrementally increasing the cancer risk.
- Normal background radiation dose is about 2.5mSv per year.
- A 13-hour flight could provide an additional 0.075mSv exposure.
- Airline crew may receive an additional 2mSv-5mSv exposure each year.

The general risk of radiation:

- A 15v (1000mSv) dose (received all at one time) equals a 5% increase of fatal cancer over a lifetime, and causes temporary radiation sickness.
- Exposure as a foetus, child or adolescent increases and can double or triple this risk.
- Exposure over age 60 may reduce the

Typical effective radiation dose: chest 8mSv, abdomen 10mSv.

- **Magnetic resonance imaging (MRI)** also provides high-quality cross-sections. Strong magnetic fields are used, avoiding the radiation associated with CT, but some medical devices such as pacemakers aren't compatible with MRI. Radiation dose: Nil.
- **Positron emission tomography (PET)** uses a scanning detector that shows the concentration of radioactive chemicals injected into the patient's bloodstream. It may be used to identify areas of inadequate blood flow in the brain after a stroke. Typical effective radiation dose: 5mSv (when not done in conjunction with CT).
- **Ultrasound** images are not high quality, but there is also no radiation. It is commonly used to study abdominal organs, pelvic organs, some joints and breast tissue. Radiation dose: Nil.

5% risk to about 1%, because potential cancer is less likely to manifest during the remainder of the person's lifetime.

Medical imaging risks include:

- An 8mSv chest CT has 400 times the radiation exposure of a 0.02mSv chest X-ray.
- A 10mSv abdomen CT may lead to an increased lifetime cancer risk of about 1 in 2000, and is called "low risk".
- A 1mSv breast mammogram, associated with a lifetime cancer risk somewhere between 1 in 10,000 and 1 in 100,000, is called "very low risk".
- A 0.01mSv limb X-ray has a "negligible risk" as it's too small to quantify easily.
- The young are at greatest risk. CT scans should not be used where an X-ray is adequate, such as to confirm pneumonia has cleared in the lungs of a child.
- These risks represent small additions to the one in three chance we all have of getting cancer in our lifetimes.

75%

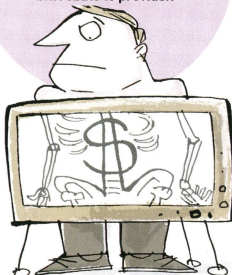
Medicare rebate of scheduled fee to private patient for in-hospital medical imaging, not bulk billed.

35%

Medicare rebate for medical imaging, not bulk billed.

95%

Medicare bulk bill rebate to provider.





All white now?

You might covet that dazzling Hollywood smile, but as **Karina Bray** asks, can you really get it with today's tooth whitening products?

Nutshell

- Tooth bleaching options include home kits and one or more visits to the dentist.
- Whichever you choose, be realistic in your expectations – the Tom Cruise look may not be for you.

As we age, our yellowing teeth betray our long-held loves of coffee, tea, red wine, cola and/or smoking. Whitening toothpastes make little

difference to these ingrained stains, so you might be tempted to turn to something a little stronger for younger-looking teeth. Options include DIY home bleaching, professional bleaching by a dentist or a session with a cosmetician in a shopping centre or beauty salon. But which is the most effective – and safest – option?



Home bleaching

Home bleaching kits can be easily bought online, and anecdotal reports suggest some satisfaction with them, though experiences vary. These kits generally contain mouldable bleach trays (you dip in boiling water and fit to your teeth), the bleaching chemical and sometimes remineralising gel or paste to reduce sensitivity.

The active bleaching ingredient is hydrogen peroxide, usually in the form of carbamide peroxide: 10% carbamide peroxide releases 3.5% hydrogen peroxide in the presence of water. We found kits with concentrations of carbamide peroxide ranging from 8% to as high as 44%. The European Scientific Committee on Consumer Products recommends strengths of no more than 6% hydrogen peroxide (equivalent to about 17% carbamide peroxide) be used at home,

and at this strength only after consulting a dentist, which Dental Board of Australia (DBA) also recommends. This is based on toxicity studies rather than effects on the teeth and represents a known safe maximum.

Clearly, some kits are a lot stronger than this, and we recommend you try a milder one. Over-bleaching and bleaching at excessive strengths can damage enamel, as can overly acidic products. Your dentist can also provide home bleaching kits, either as a stand-alone product or to supplement in-surgery power bleaching (see page 36). These are likely to be more expensive, simply because the dentist will have made custom-fitted trays, but they provide peace of mind that the strength of the product will be appropriate for you.

“The main disadvantage of many strips is that they only bleach the front six or so teeth. They also may not perfectly fit the teeth, meaning some gaps may be left”

If the tray fits...

The fit of the trays is important for this sort of whitening. If you're leaving them on for 30 minutes or so, they need to be comfortable and not cause gagging or excessive salivation. And, the closer they fit, the less bleach you need. While it's unlikely you'll ingest enough peroxide to cause systemic effects, the excess that oozes out can taste unpleasant and damage soft tissue.

Some DIY kits require you to make impressions of your teeth, and send them back to the distributor, who'll then make and post you a set of customised trays, similar to those a dentist would make. They're a little more expensive, but you can use them for many years.

Pre-filled trays promise the convenience of not having to muck around with tubes of bleaching gel and so on, but because they're one-size-fits-most, they need a lot of gel to ensure all teeth surfaces are contacted. Excess gel can ooze out and irritate the gums, if you are not among the 'most', you may find the process uncomfortable, ineffective and messy.

Adhesive strips

If the idea of mucking around with gels and trays isn't appealing, you may prefer adhesive bleaching strips, which you stick on to your teeth. They're impregnated with bleach, and once you get the hang of them, can be applied with little fuss, though sensitivity is a potential problem.

Our US counterpart, *Consumer Reports*, recently tested some bleaching strips. The standout product was Crest Whitestrips Supreme, with 14% hydrogen peroxide. These strips are available online from Australian suppliers for about \$100 a box, about twice as much as they cost in the US.

The main disadvantage of many strips is that they only bleach the front six or so teeth. They also may not perfectly fit the teeth, meaning some gaps may be left. ▶

Tips and traps

- **Have realistic expectations** – many photos of models and celebrities have teeth digitally whitened. Teeth shouldn't be whiter than the whites of your eyes.
- **Avoid staining your teeth with tea, coffee, red wine, cola and smoking for a couple of days after whitening** [which may mean giving them up for a few weeks for longer-term treatments].
- **Bleach won't whiten caps, crowns or fillings**, and these may need to be replaced if they no longer match the rest of your teeth.
- **Your teeth may need re-whitening** after a couple of years or so.



Safe bleaching at home

If you want to go down the home bleaching path:

- **Visit your dentist to get your teeth checked and cleaned.** Discuss your home whitening plans to make sure they're appropriate.
- **Start with a mild product.**
- **Choose products from reputable Australian or US suppliers.** Don't be tempted to save a few dollars by buying unreliable products subject to poor hygiene and quality control. There are plenty of scam operators

in the market, so check the company's credentials.

- **Be prepared for a temporary increase in sensitivity.** Using the product less frequently will help, though the whole process will take longer. A sensitive toothpaste and/or Tooth Mousse (see page 36) can reduce sensitivity.
- **Work on one set of teeth (top or bottom) at a time.** You'll notice the whitening effect more if you have a point of comparison, and wearing

one tray is more comfortable than wearing two.

- **Don't over-bleach, use more product (it won't help), leave it on too long or do it too often.** And, you only really need to bleach the front surface of your teeth.
- **Try to avoid swallowing the bleach, and keep it off your gums.** Hydrogen peroxide is toxic, and may also be carcinogenic, especially for people already at risk of oral cancer, such as smokers.

Power bleaching

Strong hydrogen peroxide bleach is placed in trays and fitted to teeth, and the bleaching effect is often enhanced by a light or heat source, such as a laser, LED or halogen lamps.

In general, the stronger the product and the longer the contact, the whiter the results. However, teeth are also likely to be more sensitive afterwards. Using light or heat to enhance the effect of the bleach appears to have a greater whitening effect than bleach alone, but much of this is likely to be due to dehydration of the tooth, and the colour will darken slightly as the tooth rehydrates.

The effects of power bleaching are immediate, but you may need more than one treatment to get desired results. Power bleaching is offered by dentists, and increasingly by cosmetic entrepreneurs.

Dental surgery whitening

Unlike cosmeticians, dentists are qualified to assess the status of your teeth, including taking a dental history, which may have a bearing on the treatment they're prepared

to give you. They can also assess and redress underlying problems causing discolouration. They're more likely to offer custom-fitted bleaching trays, which means better control of the bleach and less gum irritation. However, they're usually a lot more expensive – the trays alone cost hundreds of dollars.

Salon and kiosk services

With little or no training and an outlay of a few thousand dollars for an activating light and bleaching equipment, entrepreneurs can establish a lucrative money-earner in hair and beauty salons, shopping centre kiosks or even through mobile home-based teeth whitening parties. Although the process costs less than that provided by a dentist, the industry is unregulated and the practitioners have no dental training. Potential problems include lack of proper infection control, careless application or ill-fitting trays causing irritation to gums and lips, and using bleaching products that are too strong.

Practitioners are unable to advise on whether the process is appropriate for someone (some kinds of discolouration don't respond to certain treatments), and they're not qualified to check for problems such as cracked enamel, cavities, restorations or exposed root surfaces that need special care. For most people with healthy teeth,

Although salon and kiosk services cost less than those provided by a dentist, the industry is unregulated and the practitioners have no dental training.

however, the worst outcome will only be temporarily sore gums and sensitive teeth. There have been no reported cases of permanent tooth damage, although the industry is in its early days.

Arising from concerns about lack of regulation, the Australian Cosmetic Teeth Whitening Association was formed in 2009 to raise industry standards. Members agree to use a maximum bleaching strength of 12% hydrogen peroxide (which still exceeds the 6% level recommended by the DBA), and limit power bleaching (the use of a light) to no more than 20 minutes in a 24-hour period. There are also minimum training requirements. The results of this conservative treatment may not initially be as spectacular as the more intensive treatment, but it's safer. To find a member practitioner near you, contact the association at www.actwa.org.

Tooth Mousse: is there anything it can't do?

Initially developed by a team of dentists and scientists at the University of Melbourne, this great Aussie innovation has taken the dental world by storm.

GC Tooth Mousse contains calcium and phosphate derived from milk protein (casein), and remineralises the enamel surface of the tooth, preventing and reversing surface damage. It's recommended for tooth erosion, early decay, fluorosis, lesions due to orthodontic treatment and tooth sensitivity, including post-bleaching sensitivity. By strengthening the enamel,

it also protects against erosion and cavities, and can be used pre-whitening to prevent sensitivity. Applied after fluoride treatment, it enhances fluoride penetration to further protect teeth.

Apart from relieving post-bleaching sensitivity, it may also help keep your teeth white longer by resisting staining. And while the company doesn't make any claims about

whitening, anecdotal reports indicate that with regular use it slowly whitens unbleached teeth.

You can buy Tooth Mousse online (search for GC Tooth Mousse), or from your dentist for \$20-\$25 a tube. Chewing gum products are also available.

We give a thumbs up to Tooth Mousse, the Aussie invention that's taken the dental world by storm.





Fast food survival guide

Fast food doesn't always have to mean fatty food, says **Emily McCluskey**.

Burgers and chips, sushi, noodles, pizza, wraps – we're spoiled for choice when it comes to convenient fast food. There are now healthier meals at most chains so you can have your burger and eat it too – although sometimes it's about making the best choice from a bad bunch.

CHOICE looked at some of Australia's biggest fast food chains to help you choose the healthiest option available, whether you're after a quick bite on your lunch break or need to feed your family on the road. ▶

Fast food chains with more than 20 outlets in NSW – or more than 50 nationally – are required to display nutritional info on their menu boards by 1 February 2012.

Oporto

This Portuguese-style chicken specialist styles itself as "nothing fried, nothing frozen", but the fine print points out that their chips, 100% premium chicken breast Bondi Bites and Veggie Burger are all fried. Some Oporto burgers come with two or three grilled fillets, so stick to a single fillet and avoid the skin if you choose a whole chook.

EAT THIS

Grilled Chicken Breast Strip pack (4 x strips) with Garden Salad (with dressing)

1188kJ, 11.4g fat, 698mg sodium per serve

Single Fillet Norm Burger

1500kJ, 14.9g fat, 818mg sodium

NOT THIS

Rappa with small chips

3193kJ, 45.9g fat, 1323mg sodium

Veggie Burger

2700kJ, 34.3g fat, 1080mg sodium



You save up to 2005kJ, 34.5g fat and 625mg sodium



Red Rooster

Some options here come crumbed and fried, but grilled and barbequed options are also available – just avoid those that come with bacon and cheese. Try salad or vegetables on the side to add some extra vitamins and minerals.

EAT THIS

Free Range D'Lish Garden Salad

478kJ, 2.2g fat, 233mg sodium

Free Range D'Lish Burger

1340kJ, 8.3g fat,

469mg sodium

NOT THIS

Rippa Sub

3170kJ, 38.6g fat,

1422mg sodium

Real Bacon

Burger

2130kJ, 24g fat,

1677mg sodium

Save up to 2691kJ, 36.4g fat and 1190mg sodium

Subway

Eating at Subway can be a minefield – with extra cheese. While some nutritious subs are available, others will have your arteries screaming in protest, and sometimes it's hard to tell them apart. Just adding sauce can turn your healthy sandwich into a fat bomb. Their Chipotle Southwest Sauce has 406kJ and 10g of fat per 21mL serving. Bear in mind their "6g of fat or less" range is calculated without sauce or cheese.

Save up to
900kJ, 16.3g
fat and 411mg
sodium

EAT THIS

Six Inch Ham Sub

(without sauce and cheese)

1050kJ, 3.6g fat, 789mg sodium

Six-inch roasted chicken sub

(without sauce or cheese)

1180kJ, 4g fat, 438mg sodium

NOT THIS

Six Inch Meatball Marinara Sub

(with cheese)

1950kJ, 19.9g fat, 1200mg sodium

Six Inch Italian BMT Sub (with cheese)

1730kJ, 18.6g fat, 1280mg



According to Domino's and Pizza Hut, a serving of their regular range is one slice – but we disagree. Asking around the CHOICE office, we found that even the smallest eater is likely to eat two slices, so we've doubled the serving size.



Domino's

Who doesn't love pizza? Make the right choice and keep your portions under control, and you can enjoy some guilt-free. Domino's now offer a Good Choice range in single serves, taking the legwork out of finding the healthier choice.

EAT THIS

Penne Pasta with Roasted Chicken, Mushrooms and Tomato

1548kJ, 1.7g fat, 575mg sodium

Prawn and Spinach Ciabatta Pizza (Good Choice)

1645kJ, 2.2g fat, 606mg sodium

NOT THIS

Meatball and Rasher Bacon Edge Pizza (2 slices)

2060kJ, 22.8g fat, 1028mg sodium

Chicken Carbonara Pasta Box

2900kJ, 33.2g fat, 1260mg sodium

Save up to
1352kJ, 31.5g
fat and 685mg
sodium

Hungry Jack's

Hungry Jack's brings us the Whopper, Double Whopper and Ultimate Whopper, with a patty, cheese, another patty and yet more cheese.

It's a whopping big kilojoule hit. Stick to a single patty to keep your energy intake under control.

Save up to
4294kJ, 72.9g
fat, 1431mg
sodium



KFC

Be careful at the Colonel's. Most menu items are deep-fried and the closest you'll get to a salad is mayonnaise-drenched coleslaw, so all you can really do is pick the best of a bad bunch.

EAT THIS

Original Recipe Fillet (1 piece) with a regular coleslaw

1169kJ, 10.3g fat, 820mg sodium

Original Burger

1724kJ, 14.5g fat, 969mg sodium

NOT THIS

Original Recipe Chicken (2 pieces) and regular chips

3023kJ, 41.1g fat, 1283mg sodium

Twister Wrap

2446kJ, 32g fat, 1200mg sodium

Save up to
1854kJ, 30.8g
fat and 463mg
sodium

EAT THIS

Hamburger with Garden Salad

1414kJ, 11g fat, 836mg sodium

Garden Salad with Grilled Chicken and French dressing

791kJ, 7.6g fat, 955mg sodium

NOT THIS

Angry Angus (double)

3276kJ, 52.1g fat, 1775mg sodium

Ultimate Double Whopper

5085kJ, 80.5g fat, 2386mg sodium

ALL NUTRITION DATA IS CALCULATED PER SERVE

The total daily intake for the average adult is 8700kJ, 70g fat and 2300mg sodium. Needs vary depending on your gender, size and activity level. Nutritional data accurate as of May 2011; may vary slightly between states.

Pizza Hut

Unlike Domino's, Pizza Hut lacks a healthier choices menu. Don't have nutritional info at hand? Follow these rules – always go thin crust and avoid anything where the main topping is meat or cheese.

EAT THIS

Thin and Crispy Veggie Supreme Pizza (2 slices)

1162kJ, 9.2g fat, 612mg sodium

Thin and Crispy Classic Hawaiian Pizza (2 slices)

1226kJ, 11.2g fat, 810mg sodium

NOT THIS

Deep Pan BBQ Meat Lovers Pizza (2 slices)

2066kJ, 21.8g fat, 1158mg sodium

Stuffed Crust Cheese Lovers Pizza (2 slices)

2018kJ, 22.8g fat, 1000mg sodium



Save
up to 904kJ,
12.6g fat and
546mg
sodium



McDonald's

While the golden arches don't have the healthiest menu, they have introduced Heart Foundation Tick meals and salads. There's also a seared chicken line, offering a more gourmet alternative to the usual burgers. Go easy on the sauces and opt for a salad instead of fries.

EAT THIS

Seared Tandoori Wrap

1340kJ, 7.5g fat, 596mg sodium

Hamburger with Garden Salad and Italian dressing

1110kJ, 8.8g fat, 578mg sodium

NOT THIS

Crispy Chicken Bacon Deluxe with small fries

3570kJ, 41.7g fat,

1455mg sodium

Mighty Angus Burger

2870kJ, 35.7g fat,

1360mg sodium

Save up to
2460kJ, 32.9g
fat and 877mg
sodium

Burning it off

You know how the saying goes – a moment on the lips, a lifetime on the hips. If you're keen to stick with less wise fast food choices, you'll need to balance the kilojoule equation – whether that's by abstaining from indulgences the next day or extra exercise. To give you an idea of the energy in some of the fast food options, we did some kilojoule crunching.

McDonald's Double Quarter Pounder = more than 2.5 hours of constant house cleaning (definitely no breaks to watch *Oprah*) or walking.

Hungry Jack's Ultimate Double Whopper = 1.5 hour run or 3 hours of helping your friend move house (if you lift all the heavy boxes).

Wicked Wings Snack Box from KFC = almost 2 hours of cycling or 1.5 hours mowing the lawn.



Sangers and sushi

Almost half the members we surveyed buy lunch on the go up to twice a week and your favourites are sandwiches and sushi.

AT THE SANDWICH SHOP

Most people would think a ham and cheese sandwich is a healthy lunch, but bread, ham and cheese are all high in sodium and it lacks nutrients.

- Opt for wholegrain bread over white or focaccia.

- Ask for no butter, or substitute with avocado
- The more salad the better, and the more colours in the salad the more vitamins and minerals you'll get.
- Go easy on the cheese and avoid fried fillings and processed meats.
- Choose mustard or vinaigrette over creamy sauces.

AT THE SUSHI BAR

Japanese is one of the healthiest cuisines in the world, but the western palate has added some unfortunate twists such as processed cheese. Japanese cuisine can be high in sodium, which is linked with

many health problems including high blood pressure and kidney disease.

- Cut back on the salty soy sauce – use wasabi for flavour.
- Steer clear of tempura and battered or fried sushi fillings, and choose tuna, chicken or sashimi instead.
- Give a wide berth to mayonnaise and processed cheese – they'll only add unwanted fat and kilojoules.
- Miso soup is delicious but also very salty, so enjoy sparingly.



Claim to confusion

The country of origin jargon on food labels is baffling shoppers, as **Rebecca Gatto** finds.

When it comes to buying groceries, Australians want to support their local farmers, manufacturing jobs in Australia and Australian-owned companies by buying Australian-made products. Under the Food Standards Code, food labels must identify the country in which a product was made or produced. While this seems straightforward, claims are applied to whole foods rather than their individual ingredients, so country of origin (COO) labels can often be confusing.

CHOICE surveyed members to find out what they think about COO and their understanding of the different claims. We received more than 900 responses, 90% of which said origin labelling should be clearer. And it's very important to 66% of survey participants that they can confidently identify whether a product is manufactured or produced in Australia.

Almost half our survey respondents will always aim to buy Australian products when they're available, while 83% support Australian-owned companies to keep profits here. Unfortunately, there are no clear laws for the "Australian owned" claim, though

there are guidelines for its use. According to the ACCC, "Australian owned" relates to majority ownership. To make the claim, a company must be able to prove that at least 51% of ownership is held in Australia – 100% if "100% Australian owned" is claimed (see *CHOICE*, September 2010, page 28). But "Australian owned" doesn't necessarily mean the product has been manufactured in Australia. The Australian Made, Australian Grown (AMAG) campaign will not endorse a product with its Australian Made and Owned logo unless the company is both Australian-owned and manufactures its goods here.

How private labels stack up

Private labels are gaining a foothold in supermarkets, becoming serious competitors to national brand equivalents. Private labels have 100% household penetration, according to Nielsen Homescan Research, and the average grocery spend on these products continues to rise. A Nielsen Global Online Consumer Survey questioned Australian consumers on their perception of private labels; see left for a couple of key findings.

According to Coles, Woolworths and Aldi, quality is the determining factor in deciding whether to source their private label products locally or offshore.

Woolworths has a number of private label product categories, including Homebrand, Woolworths Select and Macro Wholefoods Market, with about 96% of its fresh food products grown in Australia and about 75%



Nutshell

➤ CHOICE members want to see clearer information on food labels so they can make more informed choices. ➤ We want country of origin labels to be informative, so that consumers can identify where key ingredients such as fruit, vegetables and meat have come from.

of branded packaged grocery products sourced from local manufacturers.

Coles has about 2100 private label product lines across its Smart Buy, Coles and Coles Finest brands, and was praised earlier this year by AMAG for having more than 900 products carry its logo. Coles chooses to source products from overseas if Australian suppliers are unable to meet their product specifications or volume requirements.

Aldi is unique in that its grocery range consists predominantly of exclusively branded goods, each with their own individual brand identities. Its Australian stores source 100% of fresh meat, and 97% of dairy products and fresh fruit and vegetables from Australian farmers. Aldi also sources from overseas if its conditions can't be met here. ■

46%
of Australian consumers surveyed said private labels are a good alternative to name brands

42%
said most private label brand quality is as high as name brands

Identical Circle
overseas made
and owned

Jalna
Australian made
and owned

Tooheys New
Australian made,
overseas owned

Woolworths Home Brand
Overseas made,
Australian owned

Is imported food safe?

The Australian Quarantine and Inspection Service (AQIS) keeps a eye on imported foods, and once they enter Australia they're subject to the Imported Food Inspection Scheme. Under this, food must first pass quarantine and then food safety requirements. Food policy decisions are made by the Australian and New Zealand Food Regulation Ministerial Council, while FSANZ sets safety standards for all food, detailed in the Food Standards Code. A recent example of FSANZ in action is its response to food imported from Japan following the devastating earthquake and tsunami, and resulting nuclear crisis. The Japanese government placed restrictions on certain foods sourced from areas where there had been radiation contamination. FSANZ responded by requesting that AQIS test fresh or frozen seafood, seaweed, milk and fresh fruit and vegetables coming from four affected regions. For more about what testing is going on, visit the Department of Agriculture, Fisheries and Forestry at www.daff.gov.au and search for "imported food notice 5/11".

Decoding those claims

Our survey gave participants the chance to explain their understanding of origin labels in their own words. Their responses were then classified into categories and compared with the actual definitions, listed below in *italics*, to determine how close they were. These definitions come from the Labelling Requirements of the Food Standards Code. "Australian Grown" is defined by AMAG.

Made in Australia

The product has been substantially transformed and at least 50% of the production costs have been incurred in Australia. "Substantial transformation" is defined in federal law as a fundamental change in form or nature.

Although 56% of respondents were on the right track, only 1% were spot-on – their responses were along the lines of the product being primarily processed in Australia. About 8% were incorrect, with statements such as "all ingredients/ contents are sourced in Australia", "100% Australian" and "all ingredients/ contents are sourced from overseas". One respondent thought "the product is made or substantially altered in Australia (from Australian and/or imported content)".

Made in Australia from local and imported ingredients

Whichever comes first, local or imported, is in the greatest proportion. For example, for Woolworths Select Light Smooth Peanut Butter, which is "Made in Australia from imported and local ingredients", the peanuts are sourced from overseas. About 68% of respondents had a good understanding of this claim. The most accurate response was from the 15% who suggested the ingredient/content origin is uncertain. Thirty-eight percent said they'd like food labels to disclose the origin of all ingredients in a product, and 24% want to see at least the origin of the ingredients in the greatest proportion. Twenty-three percent want to know the origin of the key

ingredients, such as the peanuts in peanut butter, but COO labelling only applies to whole foods. Packaged foods often have many ingredients and labelling their origin would be impractical in many cases.

Product of Australia

Each significant ingredient must come from Australia, and all or most of the processing must happen here too.

This premium level claim is your best bet that the product has been sourced and manufactured in Australia. Of our survey respondents, 41% had a good understanding of the claim, but 11% were incorrect, with some saying the product is "grown in Australia" or that the ingredient/ content origin is uncertain or could be local, or imported/sourced from overseas.

Australian grown

Each significant ingredient has been grown and all or almost all of the production processes have also occurred in Australia. Respondents had a good understanding of this claim, one that is commonly seen in the fresh food section of supermarkets. When used to qualify an ingredient, such as "Australian grown tomatoes", 100% of the named ingredient and at least 90% of the whole product have been grown in Australia. This is the case with Kraft Nuts Smooth Peanut Butter (below), which claims to use "100% Aussie peanuts".



Ask the Experts

Got a niggling question our team can help with?



Scott O'Keefe

With the national switchover to digital under way, how do I know whether I have a digital or analog TV?

CHOICE test coordinator and TV expert Scott O'Keefe replies:

Good question. There's no way to tell from just looking at the unit itself – you'll need to go to the instruction book or packaging. If this isn't at hand, access the TV's menu (usually via the menu button on the remote). If there's an option for digital tuning/scanning, you're all set. Or you could contact the manufacturer with the make and model number, but the TV may be out of production and that information could be hard to come by. If you purchased your TV in the past three years there's a good chance it's digital. If you bought it five years ago, it may be analog-only. If that's the case, you don't necessarily have to buy a new one. You will need to buy a set-top box, however, which will go between your TV and antenna and convert the signal. If you have an old analog set and want to record things, you could get a digital video recorder (see page 58), DVD recorder or Blu-ray recorder which also acts as a set-top box. Or you could get a TiVo unit which is both a recorder and digital tuner in one.



Are more expensive products usually better than cheaper ones?

CHOICE Research and Test Centre Manager John Ashes replies: Not at all. Many products cost more because of sturdier construction or some association with quality that has to do with brand reputation or where the product is made. The facts are another matter. More expensive products may be built like a brick, but that doesn't mean they're going to perform better, and it doesn't mean they're not going to break. Some cleaning products made in Asia work almost as well as the best European products, for instance, which can cost twice as much. You should never go by price alone. In fact, it's rare that the most expensive item is the best. Less expensive products score better than more expensive ones



John Ashes

in almost every comparative test we do. It's equally rare that the cheapest product rates highest in a test, but it's never out of the question.

Can my neighbour really tap into my wireless router and use my internet service?

CHOICE Computer technology expert Steve Duncombe replies:

If you don't secure your Wi-Fi router with a password, the answer is yes. Anyone within 50 metres of an open (unsecured) router can access your internet connection to browse the web, download files, go to dodgy and perhaps illegal websites and possibly even access your computer itself.



All usage will be attributed to your account and use up your download allowance. And these days people can hack in with any number of devices, including laptops, smartphones and even iPods. However, securing your router is easy. First, access its administration area (see your manual for details) and change the default password for the router. Then, change the name of your wireless network (called the service set identifier or SSID) from the default to something personal. Finally, turn on encryption (WPA2 is best) and change the default password to something only you know. This will keep the bad guys out.



Steve Duncombe

Ask us

Do you have a question for one of CHOICE's experts? Email us at asktheexperts@choice.com.au or write to us at Ask the Experts, CHOICE, 57 Carrington Rd, Marrickville, NSW 2204.

Which car
tyres and pressure
gauges will
guarantee your
safest, smoothest
ride? We
find out

Lab Tests

Tyres, ovens, cots, electric heaters
– they're all on test here



CHOICE tester Peter Horvath
has a licence to gauge...tyres



44

44 Ovens

Does wider mean better?

49 Rangehoods

Beware the hood that hurts

52 Cots and portable high chairs

The safest models for your bub

56 Electric heaters

Just in time for winter

58 DVRs

Watch your shows at your pace

61 Bike lights

Be seen in all the right places

62 Tyres and pressure gauges

Smart picks to save you \$\$

CHOICE. The People's Watchdog

CHOICE has its own testing laboratories where our experienced technical staff puts products through their paces. We use test methods based on Australian standards, and we develop our own to match the way consumers use a product in their homes. We buy the products we test, maintaining our independence from manufacturers, and so we know what you're faced with in the shops. Our recommendations are based on a product's quality and performance, with no hidden bias.

CHOICE SHOPPER For the best deal on products where you see this logo, call 1300 360 655. Have the model name and number, the price you've been quoted and your CHOICE subscriber number.

CHOICE ONLINE / CHOICE VIDEO

When you see one of these, there is more information about this test at www.choice.com.au.

CHOICE BEST BUY Our testers award a product a Best Buy if it delivers high quality at a comparatively low price. Not every test report includes Best Buys.

Best Buy

CHOICE GREEN BUY Our researchers award a Green Buy to a product that delivers good quality and environmental performance. Not every product test includes Green Buys.

Green Buy



Nutshell

- All ovens on test are good, very good or excellent overall, but some are easier to use than others.
- A wide oven may not give you extra space.

Wide load

Does a wide oven really give you extra baking capacity? **Martha Psiroukis** investigates.

Wide ovens look impressive and may be a good choice for large families or those who love to entertain. You can fit wider dishes or two smaller ones side by side, so you can roast (for example) two chickens side by side and a large tray of vegetables, which you can't do in a standard oven. You can also bake a large whole fish if

that's your thing, and they're convenient for large batch baking. They don't necessarily use more energy than a standard oven, and as they're shorter, they are better suited to under bench installation.

However, you're not going to get quite as much useable space as you might think. Much of the extra width is taken up by the control panel, which is on the side of all three we tested. And although the internal volume of two of the extra-wide ovens on test is larger than the standard 60cm types, one is about the same as some larger 60cm ovens, so actual space will depend on the model you choose. See What to Look For, page 46, for things you should consider.

Another drawback is that the extra surface area for cleaning and baking trays

can be quite heavy when fully loaded and they don't fit in an average sink. They may take a little longer to heat than a good standard oven, too.

All three wide ovens on test perform well, but one had a slight edge over the others and makes our recommended list (right). ➤



Shattering doors

CHOICE has had the occasional report of glass oven doors shattering. Here are the reasons why it can happen and some tips on how to avoid it happening to you:

Manufacturing imperfections Even the tiniest fault can create a stress point, and repeated heating and cooling and

WHAT TO BUY

Although only the top performers are profiled here, all perform well for oven and grill performance. There are greater differences in ease of use scores, so it's worth comparing in store as some models further down the table (page 46) may also be suitable.



STANDARD WIDTH - 60CM

91%

Electrolux EPEE63AS,
\$2639

Good points

- Excellent for base and multi-shelf cooking, roasting, low temperature oven cooking and fan grilling.
- Good for grilling and turn-down ability.
- Controls are easy to use.
- Grill trays roll out smoothly with a stopper.
- Easy to clean.
- The grill element can be lowered for cleaning.
- Default temperature for functions.

Bad points

- Digital display is not very bright.
- Some members have told us this model and its double oven equivalent have trouble reaching and maintaining set temperatures, although we didn't find this with the sample we tested



91%

Westinghouse POP883S,
\$2109

Good points

- Excellent for base cooking, roasting, low temperature oven cooking and grilling.
- Very good for grilling and multi-shelf oven cooking.
- Excellent for ease of use.
- Shield over grill element.
- Easy to clean.
- Grill element can be lowered for cleaning.
- Default temperature for functions.

Bad points

- None to mention.



Best Buy

EXTRA WIDE - 90CM

85%

Omega OO971XN,
\$1999

Good points

- Excellent for base cooking, roasting, low temperature oven cooking and grilling.
- Very good for grilling and turn-down ability.
- Good for multi-shelf baking.
- Controls are simple and easy to use.
- Grill trays roll out smoothly.
- The grill element can be lowered for easy cleaning.
- Catalytic liners have good coverage.

Bad points

- The wire spacing on the grill is wide so does not hold small items.
- No safety shield over the grill element.
- The grill tray can be pulled right out due to poor stoppers, unless telescopic runner is used.
- Enamel can be difficult to clean.

opening and closing of the door can cause this fault to expand. Manufacturers do quality checks to determine if there is a potential problem.

Frameless designs look very sleek, but increase the chance of creating a chip or stress point in the glass via knocks to the edges of the glass. The glass usually doesn't shatter at the time of the chip, but

with regular heating and cooling, and normal door use, the glass may eventually shatter. We recommend taking extra care to avoid knocking the glass edges (as well as avoiding banging doors shut or dropping items on the door). Where possible, choose a model with a frame around the glass.

Temperature differentials inside the oven can be caused by covering wire shelves

with foil or using large trays that don't belong to that oven, especially when using the grill. This creates temperature differences by blocking even heat distribution, particularly on the door, which increases the stress within the glass, causing it to shatter. Always use the trays and shelves supplied, or ones that are the recommended size.

WHAT TO LOOK FOR

Useable space Take your largest baking dish with you to the store rather than going by the stated gross or useable capacity. Many manufacturers use an international standard to measure useable capacity, but differing interpretations mean claimed useable volumes between manufacturers are not comparable. We measure from the oven floor to the grill element, side wall to side wall, and the rear wall to the door. In many cases you can slide a wide dish in between the shelf supports, and provided

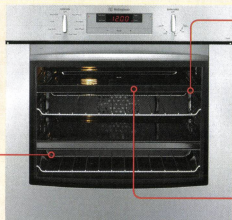
the bottom element isn't on, you can use the oven floor for warming or proving dough. However, some manufacturers recommend you don't use the oven floor at all.

Catalytic liners (or self-cleaning surfaces) work by absorbing fat splatters. For the liners to work well, you need to regularly heat the oven to 250°C for an hour to burn off the splatters and, when cool, wipe them with a damp cloth. Properly cared for, they should last a long time, but may eventually need replacing at an additional cost.

Pyrolytic cleaning automatically locks the oven door and heats up to about 500°C. This extreme heat causes food residue to become ash, which you wipe away once the oven has cooled. It allows you to clean without using chemicals. However, the glass door interior must be cleaned manually first, and shelves and supports must be removed (and cleaned separately). With some models, pyrolytic-proof baking trays can be left in the oven but only with suitable shelf supports (both may need to be bought separately).

	PERFORMANCE				FEATURES AND FUNCTIONS										SPECIFICATIONS
	Overall score (%)	Oven score (%)	Grill score (%)	Ease of use score (%)	Pyrolytic function	Catalytic liners	Telescopic runners	Smokeless grill tray	Clock	Fan grill	Grill	Bottom fan or fan assist	Top and bottom element	Fan forced	Claimed external dimensions (mm, H x W x D)
STANDARD WIDTH – 60CM															
Electrolux EPE63AS (A)	91	91	88	93	✓			✓		✓	✓	✓	✓	✓	595 x 595 x 5
Westinghouse POP883S (B)	91	88	90	95	✓			✓	✓		✓	✓	✓	✓	595 x 595 x 5
Fisher & Paykel OB60S9DEP	86	88	100	75	✓				✓	✓			✓	✓	597 x 595 x 5
# Miele H 5241 BP (C)	85	95	88	75	✓		(E)	✓		✓	✓	✓	✓	✓	596 x 595 x 5
Smeg SAP109M-8	84	85	98	73	✓					✓	✓	✓	✓	✓	597 x 597 x 5
# Bosch HBA63B450A	83	88	88	75	✓		(E)	✓		✓	✓	✓	✓	✓	595 x 595 x 5
# Fisher & Paykel OB60SCMX3	83	95	90	68		(E)	(E)			✓	✓	✓	✓	✓	597 x 595 x 5
# Neff B46W74NOGB	82	84	83	80		✓	✓				✓	✓		✓	595 x 595 x 5
# Omega O0651XN	82	83	78	83							✓	✓		✓	594 x 594 x 5
Bosch HBA73B550A	81	84	88	74	✓			✓		✓	✓	✓	✓	✓	595 x 595 x 5
Miele H 5240 B	81	91	88	68		✓		✓		✓	✓	✓	✓	✓	596 x 595 x 5
# Blanco OE606X	79	85	73	78						✓	✓	✓	✓	✓	594 x 598 x 5
DeLonghi DE60PYROS	78	85	80	70	✓					✓	✓	✓	✓	✓	594 x 594 x 5
AEG-Electrolux B5741-5-M	75	85	70	70	✓					✓	✓	✓	✓	✓	594 x 594 x 5
Baumatic BO67MS	75	81	90	60		✓				✓	✓	✓	✓	✓	601 x 598 x 5
St George 8500200PS (D)	75	91	73	65							✓	✓	✓	✓	620 x 597 x 5
EXTRA WIDE – 90CM															
# Omega O0971XN	85	91	88	78		✓	✓ (F)			✓	✓	✓	✓	✓	477 x 893 x 5
# Blanco BOSE902X	81	90	83	73		✓				✓	✓	✓	✓	✓	495 x 895 x 5
# DeLonghi DE91MPS	78	94	70	73		✓	✓			✓	✓	✓	✓	✓	478 x 896 x 5

HOW WE TEST Refer to CHOICE, October 2010, page 53, or go to choice.com.au/ovens to see how we test. **USING THE TABLE SCORES** The overall score is made up of: Ease of use: 40%; oven score: 30%; grill score: 30%. **Features** See What to Look For, top. For more details on which functions are worthwhile, see What to Look For at www.choice.com.au/ovens. **Measured internal volume** See Usable Space under What to Look For, top. **Running costs** Based on running the oven at 170°C for one hour, three times per week for 10 years at 20 cents per kWh. Where available, the fan-forced function is used; if not, the fan assist is used, and for models that don't have this function, the top and bottom elements (convection or traditional bake) are used. **Price** Recommended retail, as of April 2011.



Shelves should have safety stops to prevent them from being pulled out accidentally, and should not tilt when pulled out and with a load.

Telescopic shelf runners help to keep the shelf stable, and make it smoother to slide shelves in and out.

The grill tray should slide in and out easily and let you place food at the back. Look for a safety stop so it doesn't pull right out.

A smokeless grill tray traps fat and grease below it rather than under a wire

rack, which is useful, as splattering and smoking fat can be messy.

The grill element should be set high into the ceiling or have a shield so it can't be accidentally touched. This is particularly important in an underbench oven.

A stainless steel exterior that is fingerprint-resistant will save cleaning time.



TOO HOT TO HANDLE!

Some ovens have a Caution: Hot Surface label. An oven doesn't need a cautionary label if the glass part of the door does not rise by more than 40°C above room temperature, and any metal by more than 30°C, or enamel components by more than 35°C, when used for an hour at 200°C. For pyrolytic ovens, the cut-off temperature is increased by 5°C. If you have kids or want a cool oven front, look for one without this warning, but look carefully as labels can be placed in obscure places, removed or hidden by point-of-sale material. ▶



				COSTS	
(mm, H x W x D)	Internal dimensions (mm, H x W x D)	Measured internal volume (L)	Contact	Running costs (\$/3hrs / week over 10 years)	Price (\$)
600 x 581 (flush)	370 x 475 x 425	75	electrolux.com.au	242	2639
568 x 560 (proud)					
600 x 581 (flush)	370 x 480 x 415	74	westinghouse.com.au	244	2109
565 x 560 (proud)					
560-600 x 550	325 x 440 x 420	60	fisherpaykel.com.au	297	2199
560-568 x 550	390 x 470 x 410	75	miele.com.au	245	3499
564 x 500	380 x 470 x 390	70	smeg.com.au	272	2890
37 x 560 x 550	325 x 475 x 410	63	bosch.com.au	245	2199
560-600 x 550	325 x 440 x 420	60	fisherpaykel.com.au	298	899
600 x 550	320 x 475 x 420	64	neff.com.au	240	3999
600 x 550	330 x 440 x 385	56	hagemeyerappliances.com.au	237	799
37 x 560 x 550	325 x 475 x 410	63	bosch.com.au	199	2599
560-568 x 550	390 x 470 x 410	75	miele.com.au	219	1999
560 x 480	350 x 465 x 385	63	hagemeyerappliances.com.au	226	1349
560 x 550	350 x 425 x 400	60	delonghi.com.au	302	2099
560 x 530	345 x 440 x 390	59	electrolux.com.au	207	2429
560 x 560	370 x 460 x 390	66	thinkappliances.com.au	217	1179
600 x 590 (flush)	400 x 480 x 400	77	sga.com.au	263	2999
570 x 565 (proud)					
860 x 560	340 x 610 x 390	81	hagemeyerappliances.com.au	237	1999
857 x 540	325 x 590 x 395	76	hagemeyerappliances.com.au	378	2749
860 x 550	335 x 645 x 395	85	delonghi.com.au	275	2899

NOTES (A) Discontinued, but may still be in some stores. Replaced by EPEE83CS; new telescopic runners, racking system, and roasting dish. Changes affect ease of use slightly, but not cooking performance. **(B)** Discontinued, but may still be in some stores. Replaced by PD88B3S; new cooler door. Changes slightly affect cooking performance and running costs. **(C)** The Miele H5241B (\$2499) is technically similar and will perform the same, but it doesn't have the pyrolytic feature, so ease of use may differ slightly. **(D)** This model has a steam clean function. **(E)** Available as an optional extra. **(F)** For one shelf only.

ABOUT THE REST

STANDARD WIDTH

The **Miele H 5241 BP** produces excellent results for all oven tests and is very good for grilling. Its controls are easy to use and it has a default temperature for each function. It's quick to preheat and beeps when ready. Its pyrolytic function and smooth interior makes cleaning easy, and its internal volume is comparatively large. However, it's expensive, there is no shield over the grill, nor can it be lowered for cleaning.

The **Bosch HBA63B450A** is excellent for roasting, low temperature baking, multi-shelf cooking and fan grilling. It's very good for turn-down ability, and good for base cooking and grilling. Its display is bright and clear, the grill trays roll out smoothly, the grill element can be lowered for cleaning, and has a safety shield. Its pyrolytic function and removable door make cleaning easier. It also has an auto-off feature. Downsides include small and confusing labels, no stoppers on the grill, the oven racks don't slide smoothly, and the raised bar at the front of the shelf makes it difficult to slide dishes out.

The **Neff** is excellent for grilling and roasting. It's very good for multi-shelf, turn-down ability, and low temperature, and base baking. Its grill element can be



lowered for cleaning, its catalytic liners have very good coverage (including the ceiling) and has an intensive cleaning function. It beeps when preheated, has easy to remove shelf supports, and the door and glass can be removed for cleaning. The door slides under the oven when opened for easy access. It has default temperatures for functions, and offers programming options. However, it's only OK for grilling evenly, it's relatively expensive, the controls can be a little confusing, and the door needs to be cleaned regularly as grease can build up in the door cavity.

The **Fisher & Paykel OB605CMX3** produces perfect results for all oven tests and fan grilling except base baking. It's also very good for grilling evenly. Its controls are easy to use, its grill tray rolls out smoothly and has a stopper, the grill can be lowered for cleaning and has a safety shield, the door and glass can be removed for easier cleaning, and it has a step-down shelf. However, multi-shelf batch baking isn't recommended. The control labels are small and hard to read, the enamel and exterior can be difficult to clean, the shelves do not move smoothly, it has no child lock, and the fan is noisy.

The **Blanco OE606X** is excellent for roasting, and low temperature cooking. The simple controls are easy to use, the grill trays roll out smoothly and have a stopper, and the grill element can be lowered for cleaning and has a safety shield. The glass panel and door can be removed for cleaning, the exterior is also reasonably easy to clean, and this has a quick pre-heat time. But the grill rack is small and is only OK for grilling evenly, and the enamel can be difficult to clean.

The **Omega OO651XN** is excellent for fan grilling and roasting. It's very good for base baking, low temperature cooking, turn-down

How we test

See **CHOICE**, October 2010, page 53, or go to choice.com.au/ovens to see how we test.

Reliability

See **CHOICE**, May 2010, page 17, or go to choice.com.au/ovens to see which brands rate best.

ability, and good for multi-shelf baking. The controls are simple and easy to use, the grill trays roll out smoothly, the grill element can be lowered for cleaning, and has a safety shield, and its exterior is easy to clean. However it's only OK for grilling evenly. The glass cannot be removed from the door, the grill tray has no stoppers, the enamel is difficult to clean, has limited functions, and the cooling fan is noisy.

EXTRA WIDE

The **Blanco B05E902X** is excellent for fan grilling, base baking, roasting, low temperature cooking, and turn-down ability. It's good for multi-shelf and grilling evenly. The simple controls are easy to use, the grill trays roll out smoothly and have a stopper, and the grill element can be lowered for cleaning. Catalytic liners have good coverage, the glass can be removed from the oven door for easier cleaning, and the exterior is reasonably easy to clean, but there's no safety shield on the grill. The **DeLonghi DE91MPS** is excellent for fan grilling, base baking, turn-down ability, roasting, low temperature cooking, and very good for multi-shelf baking. Its controls are easy to use, the grill trays roll out smoothly and have a stopper, the grill element can be lowered and the door and glass can be removed for cleaning. But grilling isn't even, its catalytic liners do not provide full coverage, and there's no shield in front of the grill element.

Clear the air

Rangehoods are supposed to take odours and steam away – but some can also leave you hot and bothered, writes **Matthew Steen**.

Last time CHOICE tested rangehoods (see *CHOICE*, October 2008) we had no trouble finding and fitting the carbon filters required for recirculating mode, in which the rangehood claims to remove the food odours that it pulls in during cooking.

This time around, some of the distributors just couldn't seem to get their act together. So we're left wondering how consumers are supposed to get these filters, and in some cases after this test, how they are supposed to fit them as well.

This aside, most rangehoods generally perform well once installed, and while we test in both ducted and recirculating mode, we always endorse ducted over recirculating. Ducted takes the steam, fat and smells straight out of the room; recirculating mode uses a carbon filter, and pushes the air back into the kitchen while claiming to remove the smells.

If ducting isn't possible in your home, recirculating is your only option, but first check whether the manufacturer can regularly supply the filters. While some manufacturers state that filters need replacing as often as every two months, this really depends on the type of cooking you do. High-fat

cooking with high-odour vapours will require the filters to be changed more frequently than cooking that produces mainly steam. See the costs for this sometimes-extravagant ongoing expense in the table (page 51).

The hood that hurts

Our experience with the Fisher & Paykel HC90DCXB1 left a lot to be desired after our tester struggled to fit the carbon filters for the recirculating mode. For this model, we had to remove the mesh filters and a plate held by 12 screws to attach the carbon filters.

Installing them also required someone with small hands to navigate past the sharp metal edges of the rangehood.

At least we had the luxury of being able to place the rangehood on a table under good lighting, so be aware that you'll have an even harder time replacing these filters in situ – which the manufacturer recommends you do every six months or so. ▶



ABOUT THE REST

The **Omega** is the noisiest rangehood on the lowest setting in both modes. The **Smeg** is one of the quietest, but doesn't perform well in recirculating mode. The **DeLonghi** is the most expensive for replacing carbon filters at about

\$300 a year (if you follow the

manufacturer's replacement recommendations).

In ducted mode, most of the tested models perform well, including the

Robinhood models and the **Baumatic**.

However, the **Omega** is only borderline in recirculating mode.

RECIRCULATING
MODE

\$70

Lowest cost per year
for filters

\$316

Highest cost per year
for filters

TO BUY



83%

Blanco BWC9X
\$1499

Good points

- Excellent controls.
- Lights provide good visibility over the cooking area.
- Easy to replace the light globes.

Bad points

- Only OK noise score.



83%

Fisher & Paykel
HC90DCXB1, \$889

Good points

- Excellent controls.
- Lights provide very good visibility over the cooking area.

Bad points

- Light bulbs are very difficult and fiddly to replace.
- Only OK noise score.



82%

Miele DA 5990 W
\$1499

Good points

- Lights provide very good visibility over the cooking area.
- Very easy to replace the light globes.
- Quiet operation.

Bad points

- The controls are located on the flue above the canopy, which you may find hard to reach.



	PERFORMANCE						SPECIFICATIONS				
	Overall score (%)	Performance score (%)	Ease of use score (%)	Noise score (%)	Noise (dB)*	Running cost for 100 hours (\$)**	Construction	Type of light	Fan speeds	Contact	Price (\$)
DUCTED											
Blanco BWC9X	83	90	83	68	43/61	2.70	S/S	12W halogen	3	blanco-australia.com	1499
Fisher & Paykel HC90DCXB1	83	95	87	58	48/64	4.00	S/S	50W halogen	3	fp.com.au	889
Miele DA 5990 W	82	90	70	70	39/60	2.70	Glass-S/S	50W halogen	4	miele.com.au	1499
Fisher & Paykel HC90PCHTX1	79	90	80	55	53/64	2.70	S/S	12W halogen	3	fp.com.au	559
Robinhood RHC9V9	79	85	80	68	42/60	1.70	Glass-S/S	10W halogen	3	robinhood.com.au	699
Smeg K181V90	79	80	83	75	40/59	2.30	S/S	20W halogen	3	smeg.com.au	990
Robinhood RWC3CH9SS	76	85	80	55	51/65	3.70	S/S	20W halogen	3	robinhood.com.au	399
DeLonghi DEBETA 90	74	80	87	58	49/68	3.40	S/S	50W halogen	3	delonghi.com.au	1249
Baumatic BAH9008G	73	80	80	55	53/64	3.70	Glass-S/S	3W LED	3	baumatic.com.au	549
Omega OR917CXA	67	75	80	45	60/67	2.00	S/S	40W incandescent	3	omegaappliances.com.au	399

USING THE TABLES Scores The overall score is made up of: Performance: 60%; Noise: 30%; Ease of use: 10%. **Price** Recommended retail, as of April 2011. **TABLE NOTES** S/S – stainless steel. * Measured at the lowest and highest fan settings. ** Based on operating the unit for 50 hours on low and 50 hours on high setting at 20 cents per kWh. *** Price paid or as advised by the manufacturer.

RECIRCULATING



79%

Robinhood RHCV9G
\$699

Good points

- Excellent controls.
- Carbon filter is very easy to replace.
- Easy to replace the light globes.

Bad points

- Lights don't provide good visibility over the cooking area.



78%

Fisher & Paykel
HC90DCXB1, \$889

Good points

- Excellent controls.
- Lights provide very good visibility over the cooking area.

Bad points

- Carbon filter and light bulbs are very difficult and fiddly to replace.



76%

Fisher & Paykel
HC90PCH, \$889

Good points

- Excellent controls.
- Carbon filter is very easy to replace.
- Easy to replace light globes.

Bad points

- Lights don't provide good visibility over the cooking area.

PERFORMANCE

	Overall score (%)	Performance score (%)	Ease of use score (%)	Noise score (%) *	Noise (dB) *	Running cost for 100 hours (\$) **	Carbon filter price (\$) ***	Filter(s) to be replaced every (months)
RECIRCULATING								
Robinhood RHCV9G	79	85	80	68	42/60	1.70	28	2-4
Fisher & Paykel HC90DCXB1	78	95	20	63	50/62	3.90	44	6
Fisher & Paykel HC90PCHTX1	76	85	80	55	53/63	2.50	98	6
Robinhood RWC3CH9SS	76	85	80	55	51/63	3.50	52	2-4
Miele DA 5990 W	74	75	75	73	43/59	1.90	110	6
Baumatic BAH9008G	71	80	73	53	54/63	3.40	35	6-9
Blanco BWC9X	70	70	83	65	47/61	2.10	72	3
Smeg K181V90	66	60	83	73	43/59	2.10	43	6
DeLonghi DEBETA 90	60	60	83	53	56/68	2.80	79	3
Omega OR917CXA	50	50	80	40	63/65	1.10	33	3



76%

Robinhood RWC3CH9SS
\$399

Good points

- Excellent controls.
- Carbon filter is very easy to replace.

Bad points

- Lights don't provide good visibility over the cooking area.
- Light globes are fiddly to replace.

WHAT TO LOOK FOR

Exterior should be easy to clean and have no nooks or crevices where dirt and grease can build up.

Light Two globes over the cooking area generally provide better visibility than one, and halogen lights tend to provide better visibility than incandescent. Make sure the globes are easy to replace.

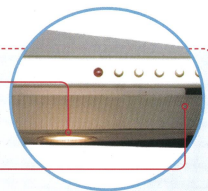
Controls Look for sliding or push-button controls on the front panel that

are easy to reach and operate. The Miele is the only model that has controls on the flue cover instead.

Noise Ask in the shop if you can listen to the rangehood on all its settings. You should be able to hold a conversation while it's on.

Filters All rangehoods have a filter. Those made of aluminium mesh are relatively easy to clean as they

can go in the dishwasher. Models in recirculating mode also have a carbon filter that should be replaced regularly.





Nutshell

- Each cot is assessed against the mandatory safety clauses from the Australian Standard AS/NZS 2172:2003.
- All cots on test should meet the standard, but not all meet the current and updated provisions of the standard.

Goodnight, sleep tight

A mandatory standard ensures most manufacturers continue to improve the safety of their cots, says **Rebecca Gatto**.

Injuries associated with nursery furniture are highest during the first year of a child's life. In particular, cots pose one of the greatest risks, so it's vital to ensure that your baby is set up in a safe sleeping environment. There's a huge range of cots on the market, all with different designs, patterns, colours, bedding and trims, but when it comes to the crunch, what really counts is your baby's safety.

If you're wondering why we check information requirements, it's because the standard specifies how instructions, labels and markings should be presented. Clear and correct information, such as maintenance, usage and date of manufacture, help make the cot safer and easier to use. However, we don't consider this to be as critical as the physical safety of the cot, so you may find some cots that don't meet information clauses are still worth considering.

All cots sold in Australia must pass the Australian Standard for household cots, based on AS/NZS 2172. CHOICE recently tested 10 models, which we compared with six models that are still available from our previous test. We assessed each one against mandatory as well as non-mandatory clauses of the Australian Standard. Of the 16 on test, we recommend seven (see right) – these passed all safety requirements. Five additional cots are worth considering, as they pass all the key aspects of the standard but fail non-mandatory clauses – in these cases, entrapment hazards and marking requirements, which we consider minor failures. Four cots are not recommended; they all fail a mandatory part of the standard, and while the risk of injury from these may be small, we believe any failure of the mandatory safety standards is unacceptable. See the table (page 54) for more.

All cots should be certified as meeting the standard, however manufacturing issues can result in a sample failing to meet all requirements (see What to Look For, page 54). After testing, we always let

manufacturers know of any failures of the standard. Most of them have responded, saying they would address the problems we found, so it's great to see they take their product safety as seriously as we do.

WHAT TO BUY



BeBe Care Coventry XT, \$530

Good points

- Passed all safety tests.
- Passed information requirements.
- Convertible to junior bed.
- Very easy to assemble.

Bad points

- None to mention.

WHAT TO BUY



Childcare Sanford XT,
\$360

Good points

- Passed all safety tests.
- Passed information requirements.
- Convertible to junior bed.
- Easy to assemble.

Bad points

- None to mention.



Childcare Durham XT,
\$450

Good points

- Passed all safety tests.
- Passed information requirements.
- Convertible to junior bed.
- Very easy to assemble.

Bad points

- None to mention.

Love N Care
\$229

Good points

- Passed all safety tests.
- Easy to assemble.

Bad points

- Minor failure of information requirements.



Love N Care Euro,
\$599

Good points

- Passed all safety tests.
- Passed information requirements.
- Convertible to junior bed.
- Storage drawer.
- Very easy to assemble.

Bad points

- None to mention.



Regent Sherbrooke,
\$399

Good points

- Passed all safety tests.
- Convertible to junior bed.
- Easy to assemble.

Bad points

- Minor failure of information requirements.



Tasman Eco Tuscany,
\$699

Good points

- Passed all safety tests.
- Convertible to junior bed [with optional kit].
- Easy to assemble [but ends are heavy].

Bad points

- Child's clothes may snag on caps that protrude on top corners.

Sleeping soundly

Sudden infant death syndrome (SIDS) is the leading cause of death in infants older than 28 days, but the incidence of SIDS is declining. SIDS and Kids is a non-profit organisation dedicated to research and providing education and support to parents.

For more, visit sidsandkids.org.

Tips for safe sleeping

- Put your baby to sleep on their back from birth, not on their tummy or side.
- Keep your baby's face uncovered. Doonas, pillows, bumpers and soft toys can pose a suffocation risk.
- Use lightweight blankets and tuck your baby in securely.
- Don't share your bed with your baby: they risk slipping under the bedding, getting too hot, being trapped between a parent and a wall or being rolled on.
- Use a firm, well-fitting, flat mattress.
- Position your baby's feet at the bottom of the cot so they can't slip down under the blankets.

WHAT TO LOOK FOR

Cots certified Cot should be certified to AS/NZS 2172. Most go through certification when they are first produced, then continue to be made without recertification and may fail some updated safety criteria. We think manufacturers should recertify cots every two years.

Sturdy and durable Each component should be permanently fixed or require a tool to pull apart.

Deep enough to stop baby falling out. **Mattress** should fit snugly around all sides. When choosing a mattress, ensure there is no more than a 40mm gap between the edge of the mattress and the cot side when the mattress is pushed to the opposite side. Gaps pose a suffocation risk should your baby roll face-first into them.

No head entrapment hazards Any large space/opening must be between 50mm and 95mm to stop your baby from either getting caught or falling out.

No limb entrapment hazards Smaller spaces/openings shouldn't be between 30mm and 50mm wide.

No finger entrapment hazards Any space or opening shouldn't be between 5mm and 12mm wide.

Drop side should be secure and smooth for an adult to operate but impossible for a child.

Hazardous protrusions Nothing should be sticking out or pointing up that could hit a child's head or snag their clothing.

Finish All components should be blunted, smooth and gently contoured.

Footholds There shouldn't be anything

that could be used as a ledge to climb out. **Drop side clearance** When you open the dropside, it should be at least 50mm from the floor to clear your feet.

Junior bed conversion means you'll get much longer use out of it.

Teething strips are plastic strips on the wooden edges of the cot, so that neither the baby nor the cot is damaged if it's chewed on.

Castors / brakes Wheels make the cot easier to move around, but look for lockable brakes on at least two wheels.



	FEATURES							SPECIFICATIONS	
	Passed all safety tests	Passed information requirements	Dropside	Teething strips	Castors	Brakes	Junior bed conversion kit	Dimensions (cm, H x W x L)*	Price (\$)
RECOMMENDED									
BeBe Care Coventry XT	✓	✓	✓	✓	0	0	✓	110 x 84 x 139	cnpprands.com.au 530
# Childcare Sandford XT	✓	✓	✓	✓	4	4	✓	108 x 77 x 139	cnpprands.com.au 360
Childcare Durham XT	✓	✓	✓	✓	4	4	✓	116 x 79 x 137	cnpprands.com.au 450
# Love N Care Sereno	✓		✓	✓	4	4		105 x 76 x 141	lovenecare.com.au 229
Love N Care Euro	✓	✓	✓	✓	0	0	✓	121 x 93 x 139	lovenecare.com.au 599
# Regent Sherbrooke	✓	✓	✓	✓	0	0	✓	113 x 76 x 135	(03) 9580 0619 399
# Tasman Eco Tuscany	✓		✓	✓	0	0	✓ (A)	106 x 86 x 146	tasmaneco.com.au 699
WORTH CONSIDERING									
Babyhood Luna V2			✓	✓	4	4	✓ (B)	116 x 76 x 135	babyhood.com.au 399
# Boori Matilda			✓		0	0	✓	102 x 86 x 140	boori.com.au 630
Bootiq Annabelle			✓	✓	4	2	✓ (A)	110 x 80 x 136	bootiq.com.au 429
# Groteit C48 Ritz			✓	✓	4	4	✓	117 x 76 x 140	groteit.net 349
Kingparrot Byron	✓		✓	✓	0	0	✓ (B)	89 x 77 x 142	king-parrot.com.au 490
NOT RECOMMENDED									
# Babyhood Qtee			✓	✓	4	4	✓	105 x 77 x 140	babyhood.com.au 329
# Cariboo Contemporary Q03					0	0	✓ (A)	92 x 82 x 139	cariboonz.com 799
# Ikea Sniglar					0	0		84 x 75 x 138	ikea.com.au 129
# Kingparrot Yarra			✓		0	0	✓	90 x 79 x 143	boori.com.au 400

USING THE TABLE Ratings: **Recommended** meets all safety requirements. **Worth considering** meets all key safety requirements, but fails some minor points (such as finger entrapments). **Not recommended** fails at least one mandatory safety requirement. **Price** Recommended retail, as of March 2011. **TABLE NOTES** # Newly tested models. All other models are from our 2010 test. * Rounded up to the nearest cm. (A) The junior bed conversion kit is available as an optional extra. (B) No bed rail used.

Sweet seats

Harnesses, boosters and clip-on seats are compact alternatives to a standard high chair, says **Chris Barnes**.

Regular high chairs are a popular way to seat a toddler at the table, but these can be bulky and expensive. If you want a cheaper and more compact option, a portable high chair is a good alternative.

There are three types:

Clip-on or **hook-on** chairs are attached to the table, which should be solid and stable. Clamps need to be tight enough to hold it in place without damaging the

table. Clip-on chairs generally have no foot support and usually fold or flatten for storage or transport.

Booster seats strap to a chair and elevate the child to table height. They can have a tray and be adjustable. The chair should be stable when the booster is attached. The ones we tested have little or no side support for the child, which means they have more chance of slipping or throwing themselves sideways and could

possibly knock over it. We failed other tests too, so we recommend any of them.

Harnesses are strapped to a chair. They don't elevate the child to level, but have the advantage of being versatile, compact and portable. ■

WHAT TO BUY

CLIP-ON



Chicco Quick Adjust, \$129



Childcare Primo, \$60

HARNESSES



Phil & Teds Lobster, \$80



Bambinoz Portachair, \$80

WHAT TO LOOK FOR

Fitting The seat should fit securely and easily. Most stores have them set up so you can see how they work.

Security Make sure the seat won't move or tip over the table or chair once your child is in place.

Seat should have back and side support, and prevent them unbalancing or falling.

Five-point harness with shoulder, waist and crotch straps. The buckles should be easy for you to release, not your child.

Tray should be secure when fitted but easy to remove, attach and adjust.

Washable The Bambinoz and Phil & Teds Wriggle Wrapper can both be machine-washed.

Other models tested

Clip-on

Chicco 360°	\$149
Infa Baby Diner Chair	\$50
Phil & Teds Metoo	\$60

Booster

Chicco Mr. Party	\$79
Fisher-Price Healthy Care Deluxe	\$65
Infa-secure 431 Vera Foldable	\$70
Love N Care BP Boost Portable	\$49
Minui HandySitt	\$150
Safety 1st Recline & Grow	\$75
The First Years Swing Tray	
Booster Seat	\$55

Harness

Phil & Teds Wriggle Wrapper	\$50
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The **Chicco 360°** is worth considering. We found sharp edges on some of its components, and its harness is removable without a tool, but it's otherwise safe and sturdy.

The others failed various safety or durability tests. Some have finger or limb entrapment hazards, or don't have high enough sides to give support, or won't sufficiently prevent a child from standing up and possibly falling. See our full report at choice.com.au/portablehighchairs for details.

Getting cosy

Not all electric heaters are created equal – and price is no indication – **Chris Barnes** discovers.

The recent cold spell has seen heaters come out of storage earlier than usual. Reverse-cycle air conditioners and gas heating are better options for heating large spaces, but for warming a small room, a portable electric heater can do the job. We tested 17 models, including convection and column models and one ceramic fan heater.

Four of the heaters are newly tested, and we have more under way. Unfortunately, there are too many portable heaters on the market for us to test them all, and new models don't appear in stores until April/May, making it hard to get them in time for our June report. The rest will appear in our online updates (see opposite).

We found that heaters with fans tend to be better as they distribute the heat more effectively around the room, though

merely having a fan doesn't guarantee good performance. A thermostat that accurately measures the room temperature and cycles the heater on and off at the right times is also important. Price is not necessarily an indicator of performance; the \$29 Abode 2000W 8126801 convection heater, while hardly a star performer, is as good as or better than other models four or five times the price. DeLonghi is the stand-out brand.

Safety first

We check the heaters for electrical safety, including how well their tilt switch works. We also subject them to a test where a towel is draped over the heater. All (except the radiant and convection models) pass this test, but we still recommend against putting anything in direct contact with a heater.

The Australian Standard for room heaters has been updated to improve the safety of fan heaters (the small plastic-bodied type), as these have caused a number of fires. New rules require them to have a tilt switch (or similar safety device) and improved resistance to ignition. ■

To get best results from small heaters, seal off the room as well as possible. Close doors and windows and make sure there are no drafty gaps.

Nutshell

➤ Electric heaters are a cheaper alternative to reverse cycle-air conditioning for heating smaller rooms.
➤ Models without fans or effective thermostats can struggle to warm even a small room.

	PERFORMANCE	
	Overall score (%)	Heating score (%)
DeLonghi HCS2552FTS (A)	70	78
DeLonghi DL2401TF	66	70
DeLonghi RAP240IT	60	59
DeLonghi HS25F	59	65
EuroLux RC241	59	63
Omega Altise OPM24M	59	67
Atlantic Artisan 519622 (B)	58	65
Dimplex OFC2400TIF	57	59
Kambrook KPH200 (A)	57	57
Omega Altise AE2400	56	55
# Abode 2000W 8126801	54	57
Dimplex OFRC24TIB	54	54
Omega Altise OC2411	54	52
# Kambrook KOH111	52	50
# Dimplex OFC2000TI	48	45
Omega Altise OPM20E	47	47
# Abode 11-fin 8126795	45	39

WHAT TO LOOK FOR

Thermostat This maintains an ideal constant room temperature (within the heater's capacity), and should have a control that's easy to read and set.

A fan allows for much quicker and more even heat distribution.

Frost watch may be useful for colder climates, as it claims to maintain a temperature of about 5°C if the thermostat is left on its lowest setting, avoiding frost. We didn't test this feature.

Thermal cut-out is designed to prevent the heater from overheating.

Tilt switch turns the heater off if it falls over.

Cord length should be long enough for your needs. Electric heaters should not be used with an extension cord, as it may get hot and pose a fire hazard.

WHAT TO BUY



70%
DeLonghi HCS2552FTS, \$149

Good points

- Wall-mount kit supplied.
- Three heat settings.
- Two handles
- Longest cord.
- Fastest heater to a 5°C and 10°C rise.
- Highest room temperature after two hours.

Bad points

- None to mention.



66%
DeLonghi DL2401TF, \$169

Good points

- Four fold-out castors – no assembly required.

Bad points

- Does not achieve a 10°C increase over two hours with the fan off.

FEATURES / SPECIFICATIONS

Safety tests	Heater type	Frost watch	Timer	Thermal cut-out	Thermostat	Tilt switch	Heat without fan on	Cord storage	Dimensions (cm, L x H x D)	Weight (kg)	Cord length (m)	Heat settings	Contact	Price (\$)
Pass	Convection	✓	✓	✓	✓	✓	✓	✓	76 x 46 x 15	6.0	2.3	3	delonghi.com.au	149
Pass	Oil column	✓	✓	✓	✓	✓	✓	✓	53 x 64 x 15	16.1	2.2	3	delonghi.com.au	169
Pass	Oil column	✓	✓	✓	✓	na	✓	✓	66 x 65 x 18	21.2	2.2	4	delonghi.com.au	379
Pass	Convection	✓	ns	✓	✓	✓	✓	✓	62 x 43 x 10	4.0	2.2	2	delonghi.com.au	59
Pass	Radiant & convection	✓	✓	✓	✓	✓	✓	✓	59 x 32 x 24	4.0	1.7	3	hagemeyer.com.au	120
Pass	Radiant & convection	✓	✓	✓	✓	na	✓	✓	104 x 47 x 7	7.0	1.8	2	omegaitise.com.au	230
Pass	Convection	✓	✓	✓	✓	na	✓	✓	74 x 45 x 10	6.0	1.4	1	atlantics.com.au	395
Pass	Oil column	✓	✓	✓	✓	✓	✓	✓	53 x 63 x 15	14.0	1.4	2	dimplex.com.au	150
Pass	Convection	✓	✓	✓	✓	na	✓	✓	75 x 50 x 11	5.5	2.2	3	kambrook.com.au	110
Pass	Ceramic fan	✓	✓	✓	✓	✓	✓	✓	18 x 79 x 10	4.0	1.8	2	omegaitise.com.au	200
Pass	Convection	✓	ns	✓	ns	na	✓	✓	58 x 42 x 11	2.9	1.5	3	bigw.com.au	29
Pass	Dry column	✓	✓	✓	✓	na	✓	✓	52 x 63 x 14	11.0	1.3	2	dimplex.com.au	170
Pass	Oil column	✓	✓	✓	✓	✓	✓	✓	53 x 64 x 16	15.0	1.6	3	omegaitise.com.au	170
Pass	Oil column	ns	✓	✓	✓	na	✓	✓	53 x 63 x 14	13.3	1.8	3	kambrook.com.au	88
Pass	Oil column	ns	✓	✓	✓	na	✓	✓	45 x 63 x 15	11.8	1.3	2	dimplex.com.au	110
Pass	Radiant & convection	✓	✓	✓	✓	na	✓	✓	90 x 48 x 7	6.0	1.8	2	omegaitise.com.au	200
Pass	Oil column	ns	✓	✓	✓	na	✓	✓	54 x 63 x 14	13.1	1.5	3	bigw.com.au	70

Find out how we test heaters, and CHOICE Plus members can check future updates with more models, at choice.com.au/electricheaters.

USING THE TABLE SCORES

The overall score is made up of: Heating: 70%; Ease of use: 30%. **TABLE NOTES (A)**

Discontinued, but may still be available in some stores. **(B)** Previous table listed this as model FPH2000S. * Measured during a two-hour test.

Newly tested model.

na Not applicable.

ns Not started.



In your own time

DVRs record TV to suit your schedule, but which one best suits your needs? Chris Ruggles finds out.

In this update we tested eight new digital video recorders (DVRs). Unfortunately, none matches our criteria to be recommended. However, the Topfield TRF-2400 comes pretty close, and is a recorder with some good features at the right price. The Magic TV MTV3700TD-AU is easier to use, but is let down by its relatively high standby energy use and failed to work with the Freeview EPG.

The problem(s) with Freeview

These days, electronic program guides (EPGs) are available on almost all DVRs.

They rely on the networks to supply information about upcoming programs via each broadcaster's data stream. To get an update, you normally have to change channel, so the EPG can update itself for that network's offering. This can be tedious

and mistakes occur because the program name may change while you're watching another network. In our experience, recording according to free-to-air EPGs often results in missed episodes or parts of programs.

	PERFORMANCE							FEATURES	
	Overall score (%)	Ease of use score (%)	Reception score (%)	Remote control score (%)	Standby energy score (%)	Standby energy use (W)	1080 upscaling	Plays DivX	Records from
Topfield TRF-2400	68	66	65	53	100	0.6	i	✓	✓
TEAC HDR3500T	66	65	60	53	100	0.3	p	✓	✓
DGTEC DG-HD1BPVR	61	56	62	46	100	0.5	i	✓	✓
Magic TV MTV3700TD-AU	59	67	61	73	0	10.0	p	✓	✓
Strong SRT 5494T	59	53	60	48	100	0.4	i	✓	✓
Topfield TRF-7160	59	66	65	45	20	5.9	i	✓	✓
Toppro TPR-5000	58	63	66	45	20	5.4	i	✓	✓
Strong SRT 5429A	53	48	58	50	70	1.8	i	✓	✓

USING THE TABLE Scores The overall score is made up of: Ease of use: 50%, Reception: 30%, Remote control: 10%, Standby energy score: 10%. Standby energy use details in Watt hours (Wh) how much energy the DVR uses when in standby mode. **1080 upscaling** (i) upscales from the



Freeview EPG is supposed to save you this hassle by combining the data from all networks into one stream and allowing the Freeview EPG to access it continuously. It can also associate the name of the program with the actual content being broadcast, so, in theory, you shouldn't miss anything.

The only DVR we could find with the Freeview EPG logo was the Magic TV model, which failed every time we tried to use Freeview. It worked well with its free-to-air EPG, and after we made repeated calls to the manufacturer's support line, they suggested going back to this EPG. At least two other products with Freeview EPGs have been released since this test, and we'll report on them as soon as possible. Don't forget, any recorder with a Freeview logo will not allow you to skip ads.

Updating your DVR

A DVR is really just a small computer – and like most computers can be upgraded. Manufacturers will occasionally produce an upgrade that

you can apply yourself by downloading a file from their website to a USB storage device. You then use the USB connection on the DVR and its on-board software to install the upgrade. This should be a simple process, but you need to pay careful attention to the instructions

because installing the upgrade incorrectly could stop the device working completely. In some cases you can return the product to a service agent and have it done for a price. If you're not comfortable with technology, this will probably be money well spent. Upgrades often correct errors or improve performance

in some areas and sometimes add features. However, they don't always have a positive effect. An improvement in one area may mean a compromise somewhere else. It's a good idea to read the manufacturer's description of what changes are being implemented to make sure they're things you'll use. We've seen performance reductions in areas such as standby energy use from one upgrade to another. ▶

We've updated the way we test and score DVRs, which means this test cannot be compared with previous PVR tests. For more detail on how we test DVRs check out our reviews online at choice.com.au/dvr.

Nutshell

- ▶ None of the models on test are particularly easy to use, but check for other features that matter to you (not all DVRs record pay TV, for example).
- ▶ Electronic program guides (EPGs) are still unreliable.

ISTOCK PHOTO

SPECIFICATIONS

COSTS

LAN connection	Wireless LAN adapter	eSATA	USB ports (R = rear, F = front)	3D capable	Quad recording	Series recording	Commercial skip	Digital audio output (coaxial / Toslink)	Dimensions (cm, H x W x D)	Weight (kg)	Hard disk capacity (GB)	Number of digital tuners	Contact	Annual running cost (\$)	Price (\$)
✓		✓	1R, 2F		✓		✓	✓ / ✓	7 x 38 x 27	3.2	500	2x HD	itopfield.com.au	9.90	649
✓			1R, 1F				✓	- / ✓	7 x 36 x 26	2.5	500	2x HD	teac.com.au	6.10	499
			1R				✓	- / ✓	7 x 36 x 27	3.1	1000	2x HD	dgtac.com.au	8.50	499
✓	✓		2R	✓	✓			✓ / ✓	6.5 x 32.5 x 24	3.2	1000	2x HD	magictv.com.au	19.50	699 (A)
			1R	✓			✓	✓ / ✓	6.5 x 34 x 27.5	2.9	1000	2x HD	strong.com.au	8.50	399
✓			1R		✓	✓	✓	- / ✓	6.5 x 34 x 27.5	2.8	500	2x HD	itopfield.com.au	15.90	549
✓			1R				✓	- / ✓	6.5 x 34 x 27.5	2.8	500	2x HD	itopfield.com.au	15.00	499
			1F					✓ / -	6 x 28.5 x 21.5	1.4	500	1x HD	strong.com.au	6.10	199

test resolution to 1080i; (p) upscales from the broadcast resolution to 1080p (see What to Look For, page 60). **Annual running cost** is calculated based on five hours of use and 19 hours of standby power per day and 19h. **Price** Recommended retail, as of April 2011. **TABLE NOTES (A)** Price paid in February 2011.

WHAT TO LOOK FOR

Record from AV input All DVRs record free-to-air TV, but you need an analog input connection if you want to record another video signal, for example from a VCR or Foxtel box. The TEAC HDR3500T and the Topfield TRF-2400 have this feature.

External drive support (timer) is a particularly handy feature if you want to store any shows you've recorded for future viewing. Effectively, it's the same as putting an additional hard drive into your DVR.

eSATA is a fast and easy connection for external hard drives.

USB connections have a slower transfer rate than eSATA, but are an efficient and common way to connect external drives.

LAN and wireless LAN allow you to connect to your home network and from there to the internet.

Video connections Your DVR should have connections that match the ones on your TV and any other device you wish to connect to. Apart from HDMI (see above right), all connections require separate audio links.

Composite is the lowest video quality,

S-video is better, and component is the highest-quality analog video option.

HDMI (high-definition multimedia interface) is an all-digital connection for both video and sound in one cable. All recorders on test have an HDMI connection. TOSLINK and digital coaxial cables deliver digital audio and provide support for audio features such as DTS, Dolby surround sound and Dolby TrueHD sound.

Quad recording can record up to four programs at the same time provided they are on the same stream, for example, SBS1 and SBS2 as well as 7HD and 7TWO.

Resolution for digital free-to-air TV can be confusing. Standard definition broadcasts are called 576i (the i is for interlaced transmission mode). High definition comes in a number of forms – 1080i is the most detailed over-the-air broadcast. However, in Australia, any broadcast at 576p (progressive transmission mode) and above is called HD. Many devices, including DVRs, can take lower resolution input and upscale it to 1080p or 1080i, which is closer to most new TVs' native resolution.



The future for DVRs

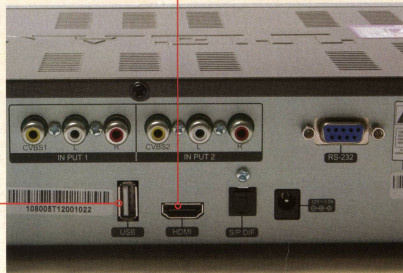
In recent times we've seen a growing number of TVs coming onto the market with USB or storage card connections that can be used to record programs. This is a good feature, particularly if you only record the occasional program and don't want to store it permanently. It could be seen as the beginning of the end for DVRs.

DVRs still have a few real advantages. They have quite large storage capacity (up to 1000GB), can program a number of recording sessions at the same time, can record while playing back a previously recorded program, and timeshift so you can rewind or pause live TV. However, as TVs develop it's possible that all of these functions will become standard and the separate DVR will no longer take up space in your lounge room. ■

ABOUT THE REST

The other DVRs on test have some features that may appeal (see table on page 58), but all fall short when it comes to ease of use. However, the **Magic TV** model has a good remote control.

Both the **Magic TV** and **Topfield TRF-7160** can record a whole series using just the program name, which is a very handy feature. However, because EPGs are unreliable, you'll need to record a short amount of time either side of the program to ensure you don't miss the start or end.





Light up the night

Visibility is vital when riding a bike after sunset, says **Rebecca Gatto**.

When riding a bike at night, the more visible you are, the better your chances of being seen by other road users. Australian road rules state that when riding in the dark, cyclists must have a steady or flashing white front light and red rear light, visible for at least 200 metres from the front or rear respectively (and ideally for 50m from the side), as well as a red reflector that's visible 50m from the rear when light is projected onto it by a vehicle's headlight at low beam. Good head-on and angled visibility is essential, but you should also consider durability, size, ease of fitting and removing, and battery replacement when buying a bike light.

WHAT TO BUY

- **Illumenox** Highpower SS-L1222W (compact front) \$79
- **Tioga** Dual Eyes (compact rear) \$35
- **Gazelle** Medeo Plus (fenderlight incorporated dynamo front light [whole bike]) \$1699
- **Literover** Trail Blazer (high-powered front light) \$199

Bicycle Victoria's lights test is conducted in an inner-city Melbourne laneway after sunset. Each light is assessed at a distance of 200m, and also at 50m with the lights angled at 45° (to simulate the bike approaching an intersection). The flash rate, where applicable, is also assessed. As well, industrial design students from RMIT University in Melbourne assess ease of use, materials and components, durability and waterproofness.

What's new

Since 2010, dynamo lights and high-powered LEDs have been included in this test alongside compact lights.

Dynamos don't require batteries – they're powered by rubbing on the wheel or hub. **Hub dynamos** are built into the front wheel of the bike, which requires a costly wheel rebuild. However, they're silent, have little drag and are efficient. Cheaper options are **bottle dynamos**, which have more drag, are noisy and wear the tyres due to contact with the sidewall of the tyre. **Magnetic induction dynamos** have no drag, noise or wear, but they're heavy and don't provide the same level of light as hub dynamos. **High-powered LEDs** are great for being seen. However,

Nutshell

- *Ride On, Bicycle Victoria's magazine, put 50 bike lights to the test. Four are recommended; see our online article at www.choice.com.au/bikelights for the full results.*
- *The lights were assessed by a panel of industry experts and CHOICE.*

without a strobe function they are more difficult to see as they can blend into any surrounding lights. Some need a separate battery pack that is strapped to the bike, while others are cable free, with the battery incorporated into the light.

Look for a light with a high burn time, so it doesn't run out after a few hours. ■

BEING SEEN

- Check your lights; if they're looking dim, replace the batteries.
- Carry a backup – lights can unexpectedly fail, especially in wet weather.
- Steady lights are good for riders to see by, but flashing lights are more visible to other road users.
- Look at the flash rates before you buy – if the flash is too slow or fast, a driver could have trouble judging your exact location.
- Check the light's mounting brackets fit your bike.
- Helmet-mounted, high-powered lights can blind other road users. Mount lights at handlebar height to avoid this.



The pressure's on

Maintaining the right tyre pressure helps keep your car on the road and money in your pocket, writes **Michael Hohl**.

If you own a car, chances are you need to buy new tyres every few years. You may not want to stick with the same brand tyre your car came with, but which of the many alternatives should you choose? Depending on the size you need (see *How to Read a Tyre*, page 64, to decipher tyre labelling), manufacturers may have several different models. They're all round and black, so it's impossible to predict how well they'll perform just by looking at them.

CHOICE's testing gives you that essential information. We looked at 175/65R14 models suitable for at least some versions of popular current and older-model small cars such as the Ford Fiesta, Honda Jazz, Hyundai Getz, Mazda2 and Toyota Yaris.

Cornering and braking

For braking from 50km/h on a dry surface, there was only slightly more than a metre between the best (BFGoodrich and Goodyear) and worst performers

(Bridgestone, GT Radial, Ironman and Toyo Teo). From 80km/h, the BFGoodrich stopped the car four metres earlier than the Ironman. While this can easily make the difference between avoiding and having a crash, the spread of results blew out much further in our relatively harsh wet conditions – largely because of the Ironman, which is the worst tyre we've ever tested, and one you should avoid. It took almost six metres more to stop the car from 50km/h than the best-performing Goodyear and Pirelli, and a staggering 15m more than the Goodyear from 80km/h. From both speeds it was still considerably worse than the second-poorest performer (Goodride).

The Ironman didn't do any better in our cornering tests, where it was the worst in dry conditions and offered hardly any traction on a wet road. The BFGoodrich, Continental and Goodyear had the most cornering grip in the dry, and in wet

Nutshell

- ▶ We come across the worst 175/65R14 car tyre we've ever found in our latest round of testing.
- ▶ An accurate pressure gauge helps you maintain the optimal tyre pressure for your car.

conditions the Goodyear left the rest of the field behind.

The overall dry and wet cornering scores in our table (page 64) aren't directly comparable since they're based on a different combination of test speeds. However, our results at 80km/h show that none of the models provide nearly as much grip in the wet as they do in dry conditions. The same is true for braking – so always slow down on wet roads. ▶



Thanks to Morgan Park Raceway in Warwick, Qld, for keeping things running smoothly

WHAT TO BUY

**84%**Goodyear Assurance,
\$121**80%**

BFGoodrich Sport T/A, \$103

**78%**Continental
ContiComfortContact CC5,
\$126**78%**Pirelli P6,
\$127**74%**Michelin Energy XM1
Plus, \$127**71%**Nexen Classe Premiere
CP661, \$89

US TYRE RATINGS

Tyre models that are marketed in the US must have a **tread wear rating** as part of the Uniform Tyre Quality Grading system (UTQG) operated by the US government's National Highway Traffic Safety Administration. If the same tyre is available here you can use the information too – it's printed on the tyre sidewall.

Under the system, a tyre's tread wear is measured under controlled conditions involving an 11,500km drive on a specified test course, and compared with a "standard" tyre with a rating of 100. For example, a rating of 200 indicates the tyre should last twice as long as the standard model. So, the higher the number, the longer you should expect the tyre to last. Real-life wear of a tyre depends on a number of aspects, such as the road surface, tyre pressure, wheel alignment and driving style. Also part of the UTQG (and printed next to the tread wear rating) are:

- **Traction rating** grades the tyre's wet braking traction (AA, A, B or C, with AA being the best).
- **Temperature rating** indicates a tyre's ability to dissipate heat (A, B or C, with A being the best).

ABOUT THE REST

We test tyres in fairly extreme situations that you'd normally only encounter in an emergency. In everyday driving conditions, the differences indicated by our scores may not be as noticeable.

However, emergency performance is what really counts. Our recommended tyres will help you keep better control of your car in such situations, and could mean the difference between a scare and an accident.

As you can see from the range of prices, paying more doesn't necessarily guarantee a better tyre – though the least expensive tyre on test is by far the worst.

HOW TO READ A TYRE

Each tyre has standard markings that allow you to pick the right size and type for your car. It's a confusing mix of letters, numbers and measurements in millimetres and inches.

Here's what it all means, using the code for the size on test (P175/65R14 82H):

- **P** stands for passenger tyre.
- **175** is the section width (in mm) when the tyre is fitted to the recommended rim, inflated to the recommended pressure, and not under load. The section width is the distance between the tyre's exterior sidewalls.

- **65** is a percentage describing the tyre's profile or aspect ratio – the ratio between the tyre's section height (distance from the wheel bead seat – where it meets the rim base – to the top of the tyre) and its section width – in this case, 65%.

- **14** refers to the diameter (in inches) of the rim to which the tyre should be fitted.
- **82** is the load rating index, which tells you the maximum weight one tyre can carry (in this case, 475 kg). Other examples: 84 (500kg), 86 (530kg), 89 (580kg), 92 (630kg), and 94 (670kg).
- **H** is the speed rating index and tells you the maximum speed at which the tyre can travel (in this case, 210km/h). Other examples: S (180km/h), T (190km/h), V (240km/h), and W (270km/h).



- **R** stands for radial, which is the most common construction method for passenger car tyres.

For more information, see Special Tyre Designs (opposite) and US Tyre Ratings (page 63).

PERFORMANCE					SPECIFICATIONS				
	Overall score (%)	Dry cornering score (%)	Wet cornering score (%)	Dry braking score (%)	Wet braking score (%)	Speed rating	Special design	Contact	Price per tyre (\$)
Goodyear Assurance	84	90	80	95	70	H	na	goodyear.com.au	121
BFGoodrich Sport T/A	80	90	75	95	55	H	Directional	bfgoodrich.com.au	103
Continental ContiComfortContact CC5	78	90	75	80	60	H	Asymmetrical	continental-tyres.com.au	126
Pirelli P6	78	85	75	90	60	H	na	pirelli.com.au	127
Michelin Energy XM1 Plus	74	80	75	80	55	H	Asymmetrical	micelin.com.au	127
Nexen Classe Premiere CP661	71	70	75	85	50	H	na	yhi.com.au	89
Firestone TZ700	68	65	60	90	60	H	na	bridgestone.com.au	99
Kumho Solus KH17	68	70	65	80	55	H	na	kumho.com.au	117
Hankook Optimo K415	66	65	65	80	55	H	na	hankooktyre.com.au	105
Yokohama A.drive	66	75	60	80	45	H	na	yokohama.com.au	118
Dunlop SP Sport300E	65	65	60	90	45	V	na	dunloptyres.com.au	121
Maxxis MA-P1	65	60	70	85	45	H	na	maxxistires.com.au	91
Sime Tyres Astar 100	64	70	60	80	45	T	na	simetyre.com.au	89
GT Radial Champiro BXT (A)	62	70	55	75	45	H	na	tyres4u.com.au	101
Toy To Plus Eco	62	70	60	70	45	H	na	toyotires.com.au	118
Goodride Radial SP06	60	65	55	85	35	H	na	(03) 9702 3877	83
Bridgestone Ecopia EP100	56	65	45	75	40	H	na	bridgestone.com.au	119
NOT RECOMMENDED									
Ironman Tires iMove	48	55	40	70	25	H	Asymmetrical	1300 089 737	75

USING THE TABLE SCORES The overall score is made up of: Dry cornering: 30%; Wet cornering: 30%; Dry braking: 20%; Wet braking: 20%. **Speed rating and special designs** See top and Special Tyre Designs, opposite. **Price per tyre RRP**, as of April 2011, or price paid in March 2011. Tyre prices can vary widely, so shop around. **TABLE NOTES (A)** Will be phased out later this year. **na** Not applicable.

Gauging tyre pressure gauges

Tyre pressure is usually measured in kilopascals (kPa) or pounds per square inch (psi). You should keep your tyres inflated to the pressure recommended by the car manufacturer – often found on a sticker inside the driver's door frame, in the glove box or on the petrol tank flap.

The manufacturer's recommendations refer to the pressure when the tyres are cold, not after you've been driving for some time. So it's best to check them at the petrol station down the road, not halfway through your journey.

If driving with a heavy load such as a trailer, inflate your tyres to a higher pressure – check the sticker for advice.

Proper inflation gives you longer tyre life and better safety. Both over- and under-inflating your tyres will wear them out sooner. Driving with under-inflated tyres also uses more petrol, adversely affects your car's handling and may even lead to tyre damage, so check the pressure regularly – for example, every time you fill up with fuel. Don't forget to check your spare tyre too.

Get your own

Sometimes gauges at petrol stations aren't well maintained, which can affect their accuracy. So you may want to think about getting your own. We tested 18

models priced between \$5 and \$80 for accuracy and ease of use; see choice.com.au/tyregauges for detailed test results and profiles. There are three main types:

- **Dial** This is the most common type, and models come in a wide range of sizes and prices. Generally, the larger the dial, the easier it is to read – but consider how much space storing the gauge in your car will take up.

- **Digital** are generally the easiest to read, especially if their display is backlit. However, you'll have to replace their battery every now and then, so there's a small ongoing cost.
- **Pencil** We didn't find this type as easy to read as others, but pencil models are generally cheap and very easy to store in a tight space.

We tested the gauges for accuracy across a range from 10psi-60psi. Most relevant for passenger cars are 20psi-40psi. The **Lion LA062A** (\$16.95) and **LA062D1** (\$14.95), and the **SCA PLU130237** (\$11.45) were spot-on in this range, while the **Dr Air TG9**, **SCA PLU165142** and **Slim 2016-6** measured comparatively large errors and should be avoided.

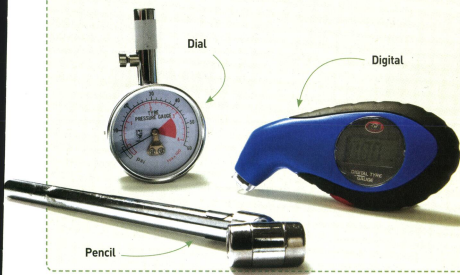
To find out how we test tyres, go to choice.com.au/testingtyres

SPECIAL TYRE DESIGNS

- Some tyres are **directional**, which means they're designed to be fitted to the car so that their tread pattern faces a particular way. Fitting them on the wrong side may affect the car's handling and reduce the tyre's life. If you use these and don't have a conventional tyre as a spare, be aware that a directional spare only fits one side of the car. If you have to use it on the wrong side, drive carefully and replace the damaged tyre as quickly as you can.
- Don't confuse directional tyres with **asymmetrical** models, designed to be fitted to the rim so that a particular side faces outwards. With these, the spare can replace any of the other tyres.
- Some car models have a **space-saver** (narrower) instead of a full-size spare. If you have to use it, follow the instructions in your user manual. There's likely to be a speed limitation, and you should only drive on it for a short distance to get you home or to the nearest tyre fitter. Using it over longer distances or at higher speeds may damage your vehicle.

MAINTENANCE TIPS

- When you check the pressure, also look for objects embedded in the tread, such as glass.
- Check for uneven wear, which could indicate a problem with the car's steering or suspension.
- Run your hands over the tread and sidewalls to identify any bubbles, cuts or cracks.
- Keep an eye on the tread wear indicators, which show the minimum legal tread of 1.6 mm [they're small bars spaced across the grooves of the tyre's tread pattern]. At the latest, replace your tyres when the tread level reaches the indicators.
- Rotate your tyres regularly – for example, at every service.



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Dr. J. H. Williams, Springfield, Ill., has been elected president of the American Society of Pathologists.